

Office of Climate, Licensing & Resource Use,
Environmental Protection Agency,
PO Box 3000,
Johnstown Castle Estate,
Co. Wexford

RE: waste licence application for anaerobic digestion facility at Newdown, The Downs Co Westmeath

Dear Sir / Madam,

Please find enclosed the following documentation for waste licence application for proposed Anaerobic digestion facility at Newdown the Downs Mullingar Co Westmeath

- 2 hardcopy copies of the application form (1 original and 1 copy)
- 2 hardcopy copies of the waste licence attachments (1 original and 1 copy)
- 2 hardcopy copies of the Environmental Impact Statement (1 original and 1 copy)
- 2 electronic copies of all of the waste licence application documents and drawings in searchable PDF format
- 17 electronic copies of all of the EIS documents and figures in searchable PDF format
- Application Fee €10,000

Should you have any queries on any aspect of the above, please do not hesitate to contact me.

Yours sincerely,

Damien Collins
For and on behalf of
ORS Consulting Engineers
Email: d.collins@ors.ie

For inspection purposes only.
Consent of copyright owner required for any other use.

Waste Licence Application

TABLE OF CONTENTS

Attachment A Non technical summary

Waste Licence application

Attachment B General

- B.1 Company Details
 - B 1.1 Branch Registrations and Certificate of Incorporation
 - B 1.2 Registration details
 - B 1.3 Company Directors
 - B 1.4 Site Ownership
- B.2 Location of Activity
- B.3 Planning Authority
- B.4 Sanitary Authority
- B.6 Notices and Advertisements
- B.7 Type of waste activity tonnages and fees
 - B 7.1 Principle Activity
 - B7.2 Other Relevant activities

Attachment C Management of the facility

- C.1 Technical Competence and Site Management
 - C1.1 Management structure
 - C1.2 Organisational Chart
- C.2 Environmental Management System
 - C2.1 Management and Reporting structure
 - C2.2 Schedule of Environmental objectives and Targets
 - C2.3 Environmental Management Programme
 - C2.4 Documentation
 - C2.5 Corrective Action
 - C2.6 Awareness and training
 - C2.7 Communications Programme
 - C2.8 Maintenance Programme
 - C2.9 Efficient Process Control
- C.3 Hours of Operation
- C.4 Conditioning Plan

Attachment D Infrastructure and Operation

- D.1 Infrastructure
 - D1.a Security including perimeter fencing, entrance gates etc.
 - D1.b Design for site Roads
 - D1.c Design for Hard Standing areas
 - D1.d Plant
 - D1.e Wheel wash
 - D1.f Laboratory facilities
 - D1.g Design and location of Fuel storage areas
 - D1.h/j Waste quarantine areas/Waste inspection areas
 - D1.j Traffic Control
 - D1.k Sewerage and surface water drainage infrastructure
 - D1.l All other Services
 - D1.m Plant sheds garages and equipment compound
 - D1.n Site Accommodation
 - D1.o Fire control system including water supply
 - D1.p Civic amenity facilities
 - D1.q Any other waste recovery infrastructure
 - D1.r Composting infrastructure
 - D1.s Construction and Demolition Infrastructure
 - D1.t Incineration Infrastructure
 - D1.u Any other infrastructure

- D2 Facility Operation
 - D2.a Unit operations
 - D2.b Process flow diagram

Attachment E Emissions

- E.1 Emissions to Atmosphere
- E.2 Emissions to Surface water
- E.3 Emissions to Sewer
- E.4 Emissions to Groundwater
- E.5 Noise Emissions
- E.6 Environmental Nuisances
 - E.6a Bird control
 - E.6b Dust Control
 - E.6c Fire Control
 - E.6d Litter control
 - E.6e Traffic Control
 - E.6f Vermin control
 - E.6g Road cleansing

Attachment F Control and Monitoring

For inspection purposes only.
Consent of copyright owner required for any other use.

- F.1 Treatment Abatement and Control systems
- F.2 Air
- F.3 Surface Water
- F.4 Sewer Discharge
- F.5 Groundwater Discharge
- F.6 Noise
- F.7 Meteorological data
- F.8 Leachate
- F.9 Landfill gas

Attachment G Resource use and Energy Efficiency

- G.1 Raw materials Substances, Preparations and Energy
- G.2 Energy Efficiency

Attachment H Energy Efficiency

- H.1 Waste Types and Quantities-Existing and proposed
- H.2 Waste acceptance procedures
 - H2.1 Draft waste acceptance procedure
- H.3 Waste handling procedures

Attachment I Existing environment and impact of the activity

- I.1 Assessment of Atmospheric emissions
- I.2 Assessment of impact on receiving surface water
- I.3 Assessment of impact on sewage discharge
- I.4 Assessment of impact on ground/groundwater emissions
- I.5 Ground and/or groundwater contamination
- I.6 Noise Impact
- I.7 assessment of Ecological impacts and mitigation measures

Attachment J accident prevention and Emergency Response

- J.1 Accident Prevention
 - J.1a Facility Design
 - J.1b Facility Operation
- J.2 Emergency Response
 - J.2a Prevention
 - J.2b Preparedness
 - J.2c Response
 - J.2d Recovery
 - J.2c Public liability Insurance

Attachment K Remediation Decommissioning, Restoration & Aftercare

- K.1 Cessation of Activity

Attachment L Statutory Requirements

- L.1 Compliance with the waste management Act 1996 to 2003
 - L1.1 Section 40(4) of the WMA 1996 to 2003
 - L1.2 Impact of the facility on the environment and health
 - L1.2a General Operations standards
 - L1.2b Air emissions and ambient quality standards
 - L1.2c Effluent emission standards
 - L1.2e Noise Standards
 - L1.2f Standards regarding the protection of habitats
 - L1.3 Application of best available techniques
 - L1.4 Compliance with waste management plan
 - L1.5 Fit and proper person
 - L1.6 Compliance with section 53
 - L1.7 Energy Efficiency
 - L1.8 Noise Emissions
 - L1.9 Accident prevention
 - L1.10 Cessation of activity
- L.2 Fit and proper person
 - L2.1 Convictions under the waste management act
 - L2.2 Technical knowledge and or Qualifications
 - L2.3a Financial provision
 - L2.3b Environmental liabilities risk Assessment
 - L2.3c Liability insurance
 - L2.3d Contingency

For inspection purposes only.
Consent of copyright owner required for any other use.

A.1 NON TECHNICAL SUMMARY

Article 12 (1)

A. Applicant Details

Bio Agrigas Ltd
Newdown, The Downs,
Mullingar
Co Westmeath
Tel: 044 9376100

Name and address for correspondence

Damien Collins
ORS Consulting Engineers
Marlinstown Office Park
Marlinstown Mullingar Co Westmeath
Tel: 044 9342518

B. Name and address of planning authority

Westmeath County Council
Planning Department,
Civic offices,
Mount street,
Mullingar Co Westmeath
Tel: 044 9332000

C. Sanitary Authority

Not applicable

D. Location

The Development will be located at Newdown the Downs Co Westmeath.
Grid reference 2511E 2506N

For inspection purposes only.
Consent of copyright owner required for any other use.

E. Nature of the Development

Introduction

This Non-Technical Summary has been prepared in accordance with Article 12(1) (u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004. Sub-articles (a) to (t) of Article 12 are addressed below.

The applicant site covers 2.30 hectares (ha) as outlined in Drawing No. 111_001_800 (Appendix B1). The proposed development will be located to the north of the existing premises with the surrounding lands remaining as agriculture.

The anaerobic digesters will be designed to receive c. 20,000 tonnes/year of feedstock sourced in the local area including agri-industry slurries, energy crops, food processing wastes and will also process Category 2 ABP material. All of the feedstock suppliers and the product receivers are within 50 kilometres of the proposed development site thus ensuring that any carbon footprint associated with the delivery of the feedstock / product is kept at a minimum.

Anaerobic processes have been used for the treatment of industrial wastes and waste waters for more than a century and AD is today a standard technology for the treatment of various industrial waste waters from food-processing, agri-industries, and pharmaceutical industries. AD is also applied to pre-treat organic loaded industrial waste waters, before final disposal. Due to recent improvements of treatment technologies, diluted industrial waste waters can also be digested. Europe has a leading position in the world regarding this application of AD.

Agricultural biogas production offers several environmental benefits. Electricity and heat are produced from a renewable energy source, thus CO₂ emissions that enhance the greenhouse effect are reduced. Anaerobic Digestion raises the NH₄-N content and decreases the carbon content of animal manure, therefore its fertilising qualities improve and less mineral N-fertiliser is needed. Production of mineral N-fertiliser is an energy consuming process connected with high CO₂ emissions from burning fossil fuels. Due to the reduced carbon content, greenhouse gas emissions during manure storage decline. The use of organic wastes as co-substrates instead of their dumping additionally reduces methane emissions.

Industries using AD for wastewater treatment range from:

Food processes: e.g. vegetable canning, milk and cheese manufacture, slaughterhouses, potato processing industry

Beverage industry: e.g. breweries, soft drinks, distilleries, coffee, fruit juices

Industrial products: e.g. paper and board, rubber, chemicals, starch, pharmaceuticals.

Industrial biogas plants bring about a number of benefits for the society and the industries involved:

Added value through nutrient recycling and cost reductions for disposal.

Utilisation of biogas to generate process energy.

Improved environmental image of the industries concerned, through environmental friendly treatment of the produced wastes.

Although the Bio-energy Facility associated with this application facilitates primarily agricultural feedstock, it is expected that the environmental and socio-economic benefits of AD, complemented by higher costs/taxation of other disposal methods, will increase the number of applications of industrial biogas in the future.

Characteristics of the project

The planned bio energy facility will combine anaerobic digestion technology to treat non hazardous organic feedstock, generate electrical power & heat and to produce a useful solid soil conditioner.

The anaerobic digesters will be designed to receive c.20,000 tonnes/year energy crops and liquid and solid wastes with 10,000 tonnes/year sourced mainly from the local area including agri-industry processing wastes, food processing wastes, and will also process Category 2 material which comprises low risk animal by-products derived from healthy animals.

Deliveries will only be accepted for processing from sources of wastes that have been previously characterised as suitable for treatment at the facility.

The non-hazardous organic feedstock planned to be treated at the waste facility are currently disposed of through land spreading and/or export.

Description of Design, Size and Scale

The proposed development area is within the central part of the total landholding as detailed on drawing 111_001_800 (Appendix B1). The development site including the entrance road from the proposed N4 Downs grade separation will occupy c. 2.3 ha.

The general layout of the proposed facility is shown in drawing no. 111-001-801 (Appendix B2), which details the location of existing and proposed buildings, extent of facility development and total land holding.

The site will be constructed and graded over its extent with the lowest finished levels being proposed at the north-eastern end of the site, 94.50m OD, rising gradually to a height of 96.50m OD at the south-western end of the site. The principal areas of the proposed facility are discussed in more detail under the headings below.

Administration

The administration area is located at the western margin of the proposed facility and will comprise a single storey office and staff facilities. There is one weighbridge located to the south of this building on the main access road for weighing of vehicles entering and exiting the facility.

Waste Acceptance

The waste acceptance building is located in the south western corner of the site, within the waste acceptance building. Offloading of the waste will take place only when the waste vehicle is suitably parked and the doors to the reception building are closed. An air curtain, or similar, immediately inside the reception building and extractor fans with associated biofilters will mitigate against any odour. The dimensions and capacities of all infrastructure associated with waste acceptance are presented in drawing 111-001-803 (Appendix A1). Pits located to the north of the site will accept maize and grass silage to be fed into the hoppers associated with the digesters. A slurry tank located to the north west of the site will accept slurries from cattle and pigs in the area which will be subsequently pumped directly to the digesters.

Process

The process area will comprise the following:

- Reception Building
- Mixing Tank
- Test Digesters
- Raw Material Storage
- Pre-Storage
- Digesters
- Digestate Storage
- Biofilter
- Recycle Water
- Hygenisation
- Gas Cleaning Evaporation
- Cogeneration
- Flare

A description of the proposed process is outlined in drawing no. 111_001_804 (appendix A2)

Storage

The two post digestion storage tanks are located to the south of the facility which will store the liquid fraction product prior to dispatch for use in the agricultural and horticultural industries. The storage area provides for the storage of materials between 15th October and the 16th January (18 weeks) when land spreading is currently prohibited in this area of the country.

Health and Safety

General Operational Safety

Prior to commissioning of the facility detailed standard operating procedures (SOPs) will be drafted which will be implemented during operation of the facility. In accordance with the Safety Health and Welfare at Work Act, 2005, the Safety, Health and Welfare at Work (Construction) Regulations, 2001 and associated Regulations, a site specific Safety Statement will be produced which will incorporate all operating procedures at the facility. Under the EU Animal By-Products Regulations 1774/2002, there is an obligation to implement and maintain a permanent procedure developed in accordance

with the system of Hazard Analysis and Critical Control Points (HACCP) which will be based on the following principles:

- Conduct a Hazard Analysis
- Determine the Critical Control Points (CCP)
- Establish Critical Limits
- Establish monitoring procedures
- Establish corrective actions to be implemented when particular CCP not under control
- Establish procedures for verification
- Document and record all procedures, corrective actions and verification results

The following measures will be implemented at the facility to minimise the potential for emergency situations:

- All on-site personnel will be adequately trained in relevant areas of employment
- The facility design will be regularly reviewed for potential safety hazards
- The facility will be designed to incorporate standby/backup plant in emergency situations
- Adequate fire detection and fire fighting infrastructure will be incorporated into the site design
- All staff will be supplied with appropriate personal protective equipment (PPE).

Fire Safety

The Operator will provide to the local Emergency Services, prior to commencement of operations, details of the nature of the types of wastes to be accepted at the facility and the health and safety measures to be adopted when working within operational areas. This information will be provided so that in the event of an emergency occurring on the site the Emergency Services will be adequately informed so as to be able to adopt the appropriate procedures for working on this site.

The plant will be provided with adequate infrastructure for fire detection and fire-fighting equipment will include:

- Smoke detectors
- Fire alarms
- 1 No. fire water tank with a capacity of 240m³
- Hydrants and hose reels
- Fire extinguishers

The following emergency procedures will be implemented to address the possible hazards arising in the unlikely event of fires occurring on site.

All fires on site are to be treated as a major hazard and a potential emergency situation, and as such must be dealt with accordingly. A fire water control tank will be located at the facility with a capacity of 240m³ and this will be regularly maintained so as to be available for fire fighting at all times. Should an incident such as a fire occur then the Fire Brigade, the Environment Protection Agency (EPA) and Westmeath County Council will be informed by the Operational Supervisor as soon as is practicable. Fires within buildings, and of plant and equipment, will be covered in the Safety Statement.

Description of Principal Processes & Activities

The proposed facility is designed for the acceptance and treatment of biodegradable waste including the following waste types:

- Slurry- Dairy cow
- Slurry- Pigs
- Silage- Maize
- Silage- Grass
- Fodder beet
- Category 2 ABP- Belly Grass
- Bakery Waste – Bread, Dough Fat

General Operation

The facility has been designed for continuous operation 24 hours a day throughout the year. Scheduled shut down periods will be kept to a minimum to allow the facility to operate at maximum efficiency.

Waste will be accepted at the facility in fully enclosed tankers and covered trailers between the hours of 0800 -1900 hours, Monday to Friday, 0800 – 1300 hours on Saturday approximately, with no deliveries on Sundays or public holidays except in emergency situations.

Occupants/Staffing

There will be approximately 10 full time employees at the proposed facility not including visitors to the site which could be up to 6 visitors some days. Such visitors may comprise general visitors, customers, local authority and Environmental Protection Agency staff. Additional staff movements at the proposed facility may be generated by deliveries, general maintenance staff, cleaning contractors, security and monitoring personnel.

Description of Secondary Process/Activities

Off-Site Traffic Movements

Traffic movements to and from the facility are outlined in chapter 12 of the EIS and in this report under the heading roads and traffic. A more detailed study on offsite traffic movements are identified in the accompanying traffic impact assessment (Appendix E6).

On-Site Waste/Personnel Movements

All waste material transported to the proposed facility will be directed to the waste acceptance building for unloading. Movement of materials on-site during the digestion process will be conducted by means of a pumped piping network and belt conveyor system. All facility staff and visitors will be directed to the administration area where parking will be available. No unauthorised

personnel will be permitted access beyond the administration area unless permitted to do so or accompanied by a facility employee.

De-sludging

De-sludging of process tanks will be required at regular intervals. The process of digester tank de-sludging will be detailed in the facility SOP's.

Monitoring

The facility will have regular facility monitoring which will be documented in the facility SOP's.

Security

Site security will be provided by a combination of suitable infrastructure and personnel. It is proposed that the site entrance will have a security entrance gate. This will be a steel palisade gate 2.4m high with security locks. There will be a security fence consisting of plastic coated fencing (2.4m high) placed around the proposed facility. There will be CCTV cameras located at suitable points around the site. Some of these will be mounted on camera towers. Security cameras will be located to cover the site entrance, administration building, process areas and powerhouse. The exact number and location of the cameras will be reviewed on an ongoing basis. Intruder alarm systems will be installed on all buildings and will be monitored on a 24 hour basis.

A record will be kept of all visitors to the site. Visitors will be monitored and supervised at all times. Personnel will be employed to provide security during closed hours and at weekends and bank holidays. The phone numbers of all emergency services will be clearly posted adjacent to all fixed line phones on site.

Energy

Connection to Substation

There is a requirement for a connection to the 20kVa Line located immediately to the north of the site. A connection application has been completed and forwarded to ESB Networks.

Water

The potable water requirements for the facility will be supplied via a 100mm diameter watermain located on the existing site. Refer to Drawing No. 111_001_809 (Appendix D7). Water required for the biogas cleaning may have to softened before use.

Sanitary Services

All foul water generated at the facility will be facilitated by an onsite percolation and distribution systems. A site suitability assessment (Appendix D2) pertaining to same, accompanies the planning application.

Telecom

Telecom network including phone lines will be ducted from the site entrance parallel to the roadway to the administration building where a main switch will be provided. The telecommunications network will extend from the administration building to all areas of the site where telemetry or remote monitoring is required. All cables will be underground and ducted in 150mm diameter uPVC ducting.

F. Class of Activity

In accordance with the third and fourth schedule of the waste management Acts 1996 to 2008 and as amended by the European communities (Waste directive) regulations 2011 it is proposed to carry out the following classes of activity at the facility.

Third Schedule		Fourth schedule	
Waste disposal operations		Waste recovery operations	
		R3	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals. This is the principle activity at the facility
		R11	Use of waste obtained from any of the operations numbered R 1 to R 10.
		R13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

Fourth Schedule Waste Recovery Activities

Class 3: Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.

This activity refers to the principal activity of the facility namely the operation of two anaerobic digesters which will be designed to receive c. 20,000 tonnes/year of feedstock sourced in the local area including agri-industry slurries, energy crops, food processing wastes and will also process Category 2 ABP material. The material is biologically processed within the digesters to produce biogas and digestate.

Class 11: Use of waste obtained from any of the operations numbered R 1 to R 10.

This activity refers to the use off- site of the electricity and digestate produced as a result of the anaerobic digestion process.

Class13: Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

This activity refers to the storage on site of the agri-industry slurries, energy crops, food processing wastes prior to processing in the anaerobic digesters. This is also to allow for the temporary storage of unacceptable waste in a designated quarantine area at the facility.

G. Quantity and nature of waste

The following is the nature and quantity of the waste which will be accepted/treated/ Recovered/recycled at the facility:

Type of Feedstock	Annual Quantity t/y	Dry Matter Content
Pig Slurry	3,000	8%
Dairy Cow Slurry	2,000	8.5%
Maize Silage	2,000	33%
Grass Silage	3,000	30%
Fodder beet	2,000	20%
Category 2 ABP- Belly Grass	5,000	14%
Bakery Waste – Bread, Dough Fat	3,000	40%
Total	20,000	22%

A full breakdown of waste types listed in the above table and as outlined European Waste Codes as presented by the Commission Decision 2000/532/EC are included in detail in Attachment H.1 of the application.

H. Raw Materials used

The purpose of the facility is to convert biodegradable waste into energy through anaerobic digestion. The main raw material for the process is the biodegradable waste. To meet Animal By-Products Regulations requirements certain disinfectants will be required at the site. The chemicals used will be selected from the Department of Agriculture and Food approved list for facilities falling under the Animal By-Products Regulations. Diesel, lubricating oil and hydraulic oil will be used in the waste processing equipment. An onsite well will be used to provide water for the facility. The exact quantities to be used are unknown but will be continuously monitored from commencement of operation to improve efficiencies. The anaerobic digestion will generate energy (electricity and heat). It is expected that 1.0MWe will be generated and the exact quantity will depend on the waste types being processed. Energy (electricity and heat) generated from the process will be used in the process. An energy audit will be conducted annually to ensure energy is being used efficiently.

I. Plant processes and operating procedures

The proposed facility is designed for the acceptance and treatment of biodegradable waste including the following waste types:

- Slurry- Dairy cow
- Slurry- Pigs
- Silage- Maize
- Silage- Grass
- Fodder beet
- Category 2 ABP- Belly Grass
- Bakery Waste – Bread, Dough Fat

The planned bioenergy facility will combine anaerobic digestion technology to treat non-hazardous organic wastes, generate electrical power and produce a useful soil conditioner.

The facility will comprise a number of distinct process units namely;

- Waste acceptance
- Waste conditioning
- Waste processing
- Hygienisation
- Biogas treatment
- Cogeneration Unit
- Biofilter and odour control system
- Storage

Waste Acceptance

All waste vehicles entering and exiting the facility will be weighed on a calibrated weighbridge. Each waste load arriving at the facility will be registered by weight, waste type and supplier. Analytical data regarding testing conducted at source prior to arrival at the facility will also be documented on arrival. A visual assessment of each load will be conducted where suspect loads will be directed for quarantine. Any wastes not deemed acceptable at the site will be returned to the waste producer.

Waste Conditioning

One tank is foreseen for the storage of liquid waste streams which can be pumped directly towards the mixing tank. The solid waste streams are first crushed and collected in a storage container with a push floor. The solid waste streams are transported to the mixing tank via a series of transport screws.

The liquid, pre-treated, waste streams and dilution water are subsequently mixed in the mixing tank. A top entry mixer ensures an intensive mixing of the three separate flows, solids, liquids and dilution water. The mixing tank also acts to remove heavy objects like stones which sink to the bottom of the tank and are removed through a scraper.

The water requirement for the facility is as follows

Anaerobic Digestion: 3,000m³ per year (This will primarily be recycled water from the rainwater harvesting system and Leachate from the Silage storage pits)

Biogas Cleaning: 800m³ per year (rainwater preferably (softened water))

Odour Treatment: 800m³ per year (rainwater and/or tap water)

The input mix is pumped from the mixing tank to the hydrolysis tank where the first degradation of the biomass is achieved.

Waste Processing

The anaerobic degradation of the organic waste streams will occur under thermophilic conditions which mean that the temperatures are maintained between 50°C to 55°C. In order to maintain the design temperature of 54°C, a recycled digestate is heated up in the heat exchanger using the HT heat from the CHP unit. The heated recycled digestate is mixed with the influent flow by means of an inline mixer.

Many modern biogas plants operate at thermophilic process temperatures as the thermophilic process provides many advantages, compared to mesophilic and psychrophilic processes: effective destruction of pathogens

- higher grow rate of methanogenic bacteria at higher temperature
- reduced retention time, making the process faster and more efficient
- improved digestibility and availability of substrates
- better degradation of solid substrates and better substrate utilisation
- better possibility for separating liquid and solid fractions

Hygienisation

The effluent from the digester is hygienised in order for the liquid and solid digestate to be used as an agricultural product. Before entering the hygienisation unit, the digestate is continuously heated up in a heat exchanger using the HT-heat from the CHP unit. The heated digestate is pumped into an isolated circular tank where the temperature is maintained at 70°C for at least a one hour period.

Biogas Treatment

In order to avoid corrosion in the CHP exhaust line and to achieve low SO_x emissions, the biogas is first desulphurised before entering the CHP. The biogas flow is sent to the biogas washer with a compressor. After the desulphurisation, the biogas is dehumidified in a condensate separator and compressed before entering the CHP. A safety flare is foreseen for burning the biogas during maintenance of the CHP engines.

Biogas production must be maintained as stable and constant as possible. Inside the digester, biogas is formed in fluctuating quantities and with performance peaks. When biogas is utilised in e.g. a CHP unit, the demand for biogas can vary during the day. To compensate for all these variation, it is necessary to temporarily store the produced biogas, in appropriate storage facilities.

The simplest solution is the biogas storage established on top of digesters, using a gas tight membrane, which has also the function of digester cover. The biogas storage facilities can be operated at low, medium or high pressure. Correct selection and dimensioning of biogas storage facility brings substantial contribution to the efficiency, reliability and safety of the biogas plant while ensuring constant supply of biogas and minimising biogas losses.

All biogas storage facilities must be gas tight and pressure-resistant, and in case of storage facilities which are not protected by buildings, they must be UV-, temperature- and weather proof. Before starting-up the biogas plant, the gas storage tanks must be checked for gas tightness. For safety reasons, they must be equipped with safety valves (under-pressure and over-pressure) to prevent damages and safety risks. Explosion protection must also be guaranteed and an emergency flare is required. The gas storage facility must have the minimum capacity corresponding to one fourth of the daily biogas production. Normally, a capacity of one or two day's gas production is recommended.

Cogeneration Unit

The biogas produced during the digestion process is desulphurised in a BELGAS® washer and sent to the CHP units. It is planned to use two CHP units to facilitate the process, the type of engine selected is the Jenbacher J316GMD. With this selection, one CHP engine will run at 100% charge and the other at a charge of 65%.

The use of the different heat sources from the CHP unit is summarised below:

- Part of the HT heat is used for maintaining the temperature in the anaerobic reactor at 54°C.
- Part of the HT heat is used for the hygienisation process
- The remaining heat can be used by the client*

*It is envisaged that the remaining heat could be put to use external to the application site and could facilitate premises in the area subject to approval with the local authority.

Biofilter and odour control system

In the biofilters the odour components in the air are removed by the bacteria which grow on the substrate inside the biofilters. The biofilters are kept damp using some of the process water.

Storage

Digestate will be stored in the two digestate storage tanks. These tanks will provide storage of 18 weeks in order to conform to the Nitrates directive. This digestate will be used as an organic fertiliser.

J. (j) Regarding Paragraphs (a) to (g) of section 40 (4) of the Waste Management Act

The information contained within the waste licence application form and its attachments including the enclosed Environmental Impact Statement demonstrates that the proposed facility meets the above requirements of the Act.

K. Source, location, nature, composition, quantity, level and rate of emissions

K1 Air

Odour Monitoring Ireland was commissioned by ORS Consulting Ltd to perform a dispersion modelling assessment of proposed emission limit values for a range of pollutants which could potentially be emitted from the proposed anaerobic digestion facility to be located in Bio Agrigas Ltd, Newdown, The Downs, Mullingar, Co. Westmeath. The report is included in Appendix E2. The source of potential emissions is indicated on drawings 111_001-811 and 111-001_812 in Appendix E7.

K2 Surface Water

Surface water is expected to infiltrate the overburden to the North of the site and flow in a South West – North East direction. Site investigations took place in the form of trial holes as part of a site suitability assessment in February 2011. Refer to the EIS Report for more information. Surface water infrastructure is outlined on drawing 111_001_807 Appendix D6

K3 Sewer

The main source of sewage produced on site will be domestic sewage arising from toilets, changing areas and kitchen areas. The sewage will discharge to an on-site treatment system as defined in the site suitability report Appendix D2. Location of the treatment plant will be as per drawing 111_001-808 Appendix D3

K4 Ground water

The development is not expected to pose any significant risk to groundwater flow. However, a wastewater treatment plant has been proposed and a possibility exists that contamination of the groundwater may occur as a result of the discharging of treated effluent to the ground. The design and installation of the plant has been and will be completed and supervised by an approved Site Suitability Assessor. For further information see chapter 7 of the EIS.

K5 Noise

ORS Environmental Consultants were commissioned by Bio-Agrigas Ireland to conduct a Daytime and Night-time broadband; one-third octave noise broadband survey at 5 pre determined noise sensitive monitoring locations in Newdown, The Downs, Mullingar, Co. Westmeath. For the findings of this survey refer to chapter 6 of the EIS.

L. Effects of any existing or proposed emissions on the environment including proposed measures to prevent or eliminate

L1 Air

There will be potential for impact on air quality from dust odour and gas engine emissions. The overall modelling carried out by Odour Monitoring Ireland indicates that the facility will not result in any significant impact on air quality in the surrounding area with all ground level concentrations of pollutants well within their respective ground level concentration limit values. For further information on this as well as the proposed mitigation measures refer to Chapter 5 of the EIS.

L2 Surface Water

All surface water will be contained and treated on site. Surface water runoff from the proposed development will be captured and directed through attenuation features and petrol/oil interceptors if required. It will then be discharged to a watercourse at a controlled rate as specified by Westmeath County Council. Refer to drawing 111_001_807 Appendix D6 for further details

L3 Sewer

Domestic sewage from toilets, changing and kitchen areas will discharge via the foul drainage system in to on site effluent treatment systems, from which it will then be discharged to a percolating area. Refer to drawing 111-001_808 Appendix D3 for further details.

L4 Groundwater

The development is not expected to pose any significant risk to groundwater flow or the prevailing hydrological conditions in the locality. It is not anticipated that there will be any adverse impact on the prevailing groundwater quality as there will be no discharges from the proposed process to groundwater. For more information see chapter 7 of the EIS.

L5 Noise

There is a potential for noise impacts from operation of the proposed development. Mitigation measures will ensure that the noise levels in the vicinity of the development are within the EPA stipulated guideline values of 55dB(A) and 45dB(A) for daytime and night time noise activities. Noise mitigation measures include traffic speed restrictions on site and ensuring that the internal plant layout will be to a standard that ensure noise levels outside buildings does not exceed 55dB(A). Detailed mitigation measures can be found in Chapter 6 of the EIS Report.

M. Monitoring and Sampling points and proposed arrangements for the monitoring of emissions

M1 Air

Continuous emission monitors will be installed to ensure compliance with emission limit values and an odour management plan will be prepared to ensure odour emissions are minimised. More details on this are contained in Chapter 5 of the EIS.

M2 Surface Water

Surface water will be monitored at two locations. Refer to drawing 111_001_812 Appendix E7 accompanying this application for further details.

M3 Sewer

There is no discharge to sewer associated with this application.

M4 Groundwater

A waste water treatment plant has been proposed for the facility. The design and installation of the plant will be supervised by an approved site suitability assessor. In line with local by-laws a maintenance contract will be undertaken with the treatment plant manufacturer for the upkeep and maintenance of the treatment plant.

M5 Noise

Noise monitoring was carried out at four locations near the proposed development. The procedures, precise noise monitoring locations and results are detailed in chapter 6 of the EIS Report.

N. Prevention, minimisation and recovery of waste

Within the site adequate provision will be made for the installation of refuse collection bins. Domestic waste generated on site will be recycled where appropriate or treated in the anaerobic digestion process. Provisions for the installation of recycling collection bins will be provided where necessary. Domestic waste will be recycled where appropriate. Any hazardous waste generated on site will be sent to an Environmental Protection Agency approved waste disposal company for appropriate disposal/recovery.

O. Off site treatment or disposal of solid or liquid wastes

All liquid waste will be treated on site. Details of this can be found in Chapter 2 of the EIS.

P. Emergency Procedures

Emergency measures will be implemented at the facility to minimise the potential for emergency situations. These include training for all on site personnel and regular safety hazards reviews. The facility will be designed to incorporate a standby/backup plant in emergency situations. Adequate fire detection and fire fighting infrastructure will be incorporated into the site design. A safety flare will be installed to burn the biogas while maintenance of the CHP engines is being carried out.

Q. Closure, restoration, remediation or aftercare of the facility, after the cessation of the activity in question

Should circumstances arise whereby it becomes necessary to shut down the facility, BioAgrigas Ltd will provide the EPA with a detailed decommissioning plan for its approval before any works begin. Financial provision will be made to secure final restoration measures if required.

R. In respect to the landfilling of waste, give the particulars of –

- i. **Financial provision with regards to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the act**

This relates to the landfilling of waste and is therefore not relevant

- ii. **Such charges as are proposed or made, having regard to the requirements of section 53A of the Act**

This relates to the landfilling of waste and is therefore not relevant.

S. State whether the activity is for the purpose of an establishment to which the European Communities Regulations, 2000, apply

The above regulations do not apply to the proposed activity.

T. Existing or proposed arrangements necessary to give effect to articles 3,4,5,6,7,8,9 and 10 of the Council Directive 80/68/EEC of 17 December 1979

There will be no direct discharge to groundwater and therefore the development is not expected to pose any significant threat to groundwater conditions. A detailed groundwater assessment is contained in chapter 7 of the EIS Report.

Article 12 (4)

All information required under article 12 (4) has been included in the following locations within this application.

A. A copy of the relevant page of the newspaper(s) in which the notice in accordance with article 6 has been published,

The relevant page of the newspaper is included in the application in Appendix B4

B. A copy of the text of the notice or notices erected or fixed in accordance with article 7,

The text of the site notice is included in the application in Appendix B4

C. Where appropriate, a copy of the notice given to a local planning under article 9

A copy of the correspondence to Westmeath co council in respect of this Waste Licence application is included in the application in Appendix B5

D. (i) A copy of the site plans and site location map in accordance with Article 7

The site plans and site location map indicating locations of the site notice are located in Appendices B1 and B2

(ii) (iii) A copy of the site plans and site location map in accordance with Article 7

The locations of emission and monitoring points are indicated in drawings 111_001-810 and 111_001_811 located in Appendix E7

E. Such fee as is appropriate having regard to the provisions of articles 40 and 41.

The fee for the application is based on the disposal of waste (other than hazardous waste) at a facility (other than a landfill facility) where the annual intake is likely to exceed 25,000 tonnes but be less than 100.000 tonnes.



Waste Licence Application Form

For inspection purposes only.
Content of copyright owner required for any other use.

EPA Ref. N^o: (Office use only)	<input type="text"/>
---	----------------------

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Management Acts 1996 to 2011.

Environmental Protection Agency
P.O.Box 5000, Johnstown Castle Estate, County Wexford
Telephone: 053-60600 Fax: 053-60699



WASTE Application Form

Environmental Protection Agency
Application for a Waste Licence

WASTE MANAGEMENT ACTS 1996 to 2003

CONTENTS

	Page
INTRODUCTION	4
CHECKLIST	5
PROCEDURES	11
SECTION A NON-TECHNICAL SUMMARY	13
SECTION B GENERAL	14
SECTION C MANAGEMENT OF THE FACILITY	21
SECTION D INFRASTRUCTURE & OPERATION	23
SECTION E EMISSIONS	28
SECTION F CONTROL & MONITORING	30
SECTION G RESOURCES USE & ENERGY EFFICIENCY	33
SECTION H MATERIALS HANDLING	34
SECTION I EXISTING ENVIRONMENT & IMPACT OF THE FACILITY	37
SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE	40
SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE	41
SECTION L STATUTORY REQUIREMENTS	41
SECTION M DECLARATION	43

INTRODUCTION

A valid application must contain the information prescribed in the Waste Management (Licensing) Regulations 2004 (SI No. 395 of 2004). **The applicant is strongly advised to read the *Application Guidance Notes for Waste Licensing*, available from the EPA.**

The applicant must conform to the format set out in the guidance notes for applications. Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. *page 5(i) of 45*, etc. **The basic information should for the most part be supplied in the spaces given in application form** and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be clearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look carefully through all aspects of the form and provide the required information, in the greatest possible detail.

All maps/drawings/plans must be no larger than A3 size and scaled appropriately such that they are clearly legible. In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend “ In the event that this information is deemed not to be held as confidential, it must be returned to”. In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the “ Access to Information on the Environment” Regulations) should be stated in the Application Form, where relevant.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

CHECKLIST

Articles 12 and 13 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) set out the information which must, in all cases, accompany a waste licence application. In order to ensure that the application fully complies with the legal requirements of Articles 12 and 13 of the 2004 Regulations, all applicants should **complete** the following.

In each case, refer to the attachment number(s) of your application which contain(s) the information requested in the appropriate sub-article.

Additional information on Article 12 (1) and Article 12(4) is included in the Non technical Summary included in Attachment A.1

Article 12(1) In the case of an application for a waste licence, the application shall -

- (a) give the name, address and, where applicable, any telephone number and telefax of the applicant (and, if different, the operator of the facility concerned), the address to which correspondence relating to the application should be sent and, if the applicant or operator is a body corporate, the address of its registered office or principal office,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (b) give the name of the planning authority in whose functional area the relevant activity is or will be carried on,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (c) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION	Not Applicable	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (d) give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the facility or premises to which the application relates,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (e) describe the nature of the facility or premises concerned, including the proposed capacity of the facility or premises, and in the case of

WASTE Application Form

application in respect of a landfill of waste, the requirements specified in Annex 1 of the Landfill Directive,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(f) specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act¹ and, in the case of an application in respect of the landfill of waste, specify the class of landfill in accordance with Article 4 of the Landfill Directive,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(g) specify, by reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000, the quantity and nature of the waste or wastes which will be treated, recovered or disposed of,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(h) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(i) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures for the activity,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(j) provide information for the purpose of enabling the Agency to make a determination in relation to the matters specified in paragraphs (a) to (g) of section 40(4) of the Act,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

¹ Note that the Third and Fourth Schedules of the Act were amended by the European Communities (Waste Directive) Regulations, 2011.

(k) give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(l) give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit or abate such emissions,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(m) identify monitoring and sampling points and indicate proposed arrangements for the monitoring of emissions and the environmental consequences of any such emissions,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(n) describe any proposed arrangements for the prevention, minimisation and recovery of waste arising from the activity concerned,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(o) describe any proposed arrangements for the off-site treatment or disposal of solid or liquid wastes,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(p) describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emission,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(q) describe the proposed measures for the closure, restoration, remediation or aftercare of the facility concerned, after the cessation of the activity in question,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(r) in the case of an application in respect of the landfilling of waste, give particulars of –

(i) such financial provision as is proposed to be made by the applicant, having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the Act, and

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(ii) such charges as are proposed or made, having regard to the requirements of section 53A of the Act,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(s) state whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (S.I. No. 476 of 2000) apply,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(t) in the case of an activity which gives rise or could give rise to an emission into an aquifer containing the List I and II substances specified in the Annex to Council Directive 80/68/EEC of 17 December 1979, describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6,7,8,9 and 10 of the aforementioned Council Directive,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

WASTE Application Form

(u) include a non-technical summary of information provided in relation to the matters specified in paragraphs (a) to (t) of this sub-article,

LOCATION	Attachment A.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

Article 12(4) Without prejudice to Article 13(1) and (2), an application for a licence shall be accompanied by -

(a) a copy of the relevant page of the newspaper(s) in which the notice in accordance with article 6 has been published,

LOCATION	Attachment B.4	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(b) a copy of the text of the notice or notices erected or fixed in accordance with article 7,

LOCATION	Attachment B.4	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(c) where appropriate, a copy of the notice given to a local planning under article 9,

LOCATION	Attachment B.5	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(d) a copy of such plans (appropriately scaled and no larger than A3 size), including a site plan or plans and location map or maps, and such other particulars, reports and supporting documentation as are necessary to identify and describe, as appropriate -
 (i) the position of the notice in accordance with article 7,

LOCATION	Appendix B.1	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(ii) the point or points from which emissions are made or are to be made, and

LOCATION	Attachment E.7	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

WASTE Application Form

(iii) the point or points at which monitoring and sampling are undertaken or are to be undertaken,

LOCATION	Appendix E.7	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(e) such fee as is appropriate having regard to the provisions of articles 40 and 41.

INCLUDED Y/N	Y	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

Article 12(5)(a) & (b) An application shall comprise 1 signed original of the application and 2 copies in hardcopy format plus 2 copies of all files in electronic searchable PDF format on CD-Rom.

HARDCOPIES PROVIDED Y/N	Y	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

CD OF PDF FILES PROVIDED? Y/N	Y	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

Article 13 Where a development requires an Environmental Impact Assessment to be carried out, 1 signed original and 2 copies in hardcopy format of the environmental impact statement plus 16 copies in electronic searchable PDF format on CD-ROM should accompany this application.

EIA REQUIRED ? Y/N	Y	
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>
3 HARD COPIES OF EIS INCLUDED ? Y/N		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>
16 CD versions of EIS, as PDF files, PROVIDED? Y/N		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

PROCEDURES

It is recommended that pre-application consultations with the Agency are undertaken before a formal submission of the waste licence application.

The procedure for making and processing of applications for waste licences, and for the processing of reviews of such licences, appear in the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) and are summarised below. The application fees that shall accompany an application are listed in the Second Schedule to the Regulations.

Prior to submitting an application the applicant must publish in a local newspaper, and erect on site, a notice of intention to apply. An applicant, other than a local authority in whose functional area the development is located, must also notify the Local Planning Authority, in writing, of their intention to apply.

An application for a licence must be submitted on the appropriate form (available from the Agency) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form, supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each emission point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions being to facilitate both the applicant and the Agency in the provision of the information and its assessment. Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. No waste management facility is exactly the same and hence each application will require different information. It is therefore possible that some of the sections of this application form may not be relevant to the activity concerned. **Where information is requested in the application form, which is not relevant to the application, the words “not applicable” should be clearly written on the form. The abbreviation “N/A” should not be used.**

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person. **Should the applicant consider information to be confidential, then the nature of this information, and the reasons why it is considered confidential should be clearly stated in an**

attachment to the Application Form. This information should be submitted in a separate enclosure bearing the legend “In the event that this information is deemed not to be held as confidential, it must be returned to (representative of the applicant)”.

Applicants should be aware that a contravention of the conditions of a waste licence is an offence under Section 39 of the Waste Management Acts 1996 to 2003.

The provision of information in an application for a waste licence which is false or misleading is an offence under Section 45 of the Waste Management Acts 1996 to 2003.

Note: Drawings. The following guidelines are included to assist applicants:

- *All drawings submitted should be titled and dated.*
- *They should have a **unique reference number** and should be signed by a clearly identifiable person.*
- *They should indicate a scale and the **direction of north**.*
- *All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the site location can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.*

The provision of information in an application for a waste licence, which is false or misleading, is an offence under s45 of the Acts.

SECTION A NON-TECHNICAL SUMMARY

A Non-Technical Summary is to be submitted. The summary should include information on those aspects outlined in the Guidance Note and must comply with the requirements of Article 12 (1) (u) of the Waste Management (Licensing) Regulations, S.I. 395 of 2004.

The Non-Technical Summary should form **Attachment A.1**.
Please refer to **Attachment A.1 for the Non Technical Summary**

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION B GENERAL***B.1 Applicant's Details*****Name*:** Bio Agrigas Ltd**Address:** Newdown, The Downs, Mullingar
Co Westmeath**Tel:** 044 9376100**Fax:** 044 9374588**e-mail:**

* This should be the name of the applicant which is current on the date this Waste Licence Application is lodged with the Agency. It should be the name of the legal entity (which can be a limited company or a sole trader). A trading/business name is not acceptable.

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Name: Damien Collins**Address:** ORS Consulting Engineers
Marlinstown Office Park
Marlinstown
Mullingar, Co Westmeath**Tel:** 044 9342518**Fax:** 044 9344573**e-mail:** d.collins@ors.ie***Address of registered or principal office of Body Corporate (if applicable)*****Address:** Bio Agrigas Ltd
Newdown The Downs Mullingar
Co Westmeath**Tel:** 044 9376100**Fax:** 044 9374588**e-mail:**

If the applicant is a body corporate, the following information must be attached as **Attachment B1**:

- a Certified Copy of the Certificate of Incorporation or Memorandum and Article of Association;
- the Company's Registration Number from the Companies Registry Office; and
- a list of the Company Directors.

Please refer to Attachment B1 for more information on company details.

State the interest of the applicant in the land which is subject to the application. The applicant is (please check):

Landowner	<input checked="" type="checkbox"/>
Lessee	<input type="checkbox"/>
Prospective Purchaser	<input type="checkbox"/>
Other (please specify)	

Name and address of all occupiers of the land on which the Activity is situated (if different from applicant named above).

Name: As Above

Address:

Tel:

Fax:

e-mail:

Name and address of the current* owner(s) and lessees of the land, buildings and ancillary plant on which the activity is or will be situated (if different from applicant named above). An appropriately scaled drawing (≤A3) showing the above details should be included in Attachment B1. Please refer to Attachment B1 for ownership details

Name: As above

Address:

Tel:

Fax:

e-mail:

*Current at the time the application is submitted

B.2 Location of Activity

Name: Bio Agrigas Ltd

Address*: Newdown The Downs Mullingar
Co Westmeath

Tel: 044 9376100

Fax: 044 9374588

e-mail:

* Include any townland

National Grid Reference (8 digit 4E,4N)	E2511 N2506
--	-------------

Location maps ($\leq A3$), appropriately scaled, with legible grid references should be enclosed in **Attachment B.2**. The site boundary must be outlined on the map in colour.

Please refer to Attachment B2

B.3 Planning Authority

Give the name of the planning authority in whose functional area the activity is or will be carried out.

Name: Westmeath County Council

Address: Civic offices

Mount Street

Mullingar

Co Westmeath

Tel: 044 9332000

Fax:

Has the Planning Authority received written notification from the applicant of the application to The Environmental Protection Agency for a Waste Licence under Article 9 of the Waste Management (Licensing) Regulations?

Planning Authority notified	Yes <input checked="" type="checkbox"/>
	No <input type="checkbox"/>

Planning Permission relating to this application:

<i>has been obtained</i>	<input checked="" type="checkbox"/>
<i>is being processed</i>	<input type="checkbox"/>
<i>is not yet applied for</i>	<input type="checkbox"/>
<i>is not required</i>	<input type="checkbox"/>

For inspection purposes only. Consent of copyright owner required for any other use.

Local Authority Planning File Reference N^o:	11/5055
---	---------

Attachment B.3 should contain *the most recent* planning permission, including a copy of *all* conditions, and the required copies of any EIS should also be enclosed. For existing activities, **Attachment B.3** should also contain copies of the most recent waste licence and any permits in force at the time of submission. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

Please refer to attachment B.3 for a copy of the planning permission received from Westmeath County Council on 22/02/2012

B.4 Sanitary Authority

In the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority or other body, give the name of the sanitary authority in which the sewer is vested or by which it is controlled and the waste water treatment plant (if any) to which the sewer discharges.

Name: Not applicable

Address:

Tel:

Fax:

The applicant must enclose, as **Attachment B.4**, a copy of any effluent discharge licence and/or agreement between the applicant and the body with responsibility for the sewer.

Not Applicable

B.5 Other Authorities

The applicant should tick the appropriate box below to identify whether the activity is located within the Shannon Free Airport Development Company (SFADCo.) area.

Within SFADCo. Area	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
----------------------------	------------------------------	--

The applicant should indicate the **Health Board Region** where the activity is or will be located.

Name: Health Services Executive (Environmental Health Department)

Address: Dublin Mid Leinster,

Unit 7C Lough Sheever corporate Park

Robinstown Mullingar Co Westmeath

Tel: 044 9384890

Fax: 044 9384889

B.6 Notices and Advertisements

Articles 6 and 7 of the Waste Management (Licensing) Regulations 2004 requires all applicants to advertise the application in a newspaper and by way of a site notice. See *Guidance Note*.

Attachment B.6 should contain a copy of the site notice and an appropriately scaled drawing ($\leq A3$) showing its location on site. **The original application must include the complete newspaper in which the advertisement was placed.** The relevant page of the newspaper containing the advertisement should be included with the original and three copies of the application.

Refer to attachment B6 for planning notices and advertisements

B.7 Type of Waste Activity, Tonnages & Fees

B.7.1 Specify the class or classes of activity in Table B.7.1, in accordance with the Third Schedule or Fourth Schedule to the Waste Management Acts 1996 to 2010, as amended by the European Communities (Waste Directive) Regulations, 2011, to which the application relates (check the relevant box(es) and mark the principal activity with a ‘P’).

Attachment B.7 should identify the principle activity and include a brief technical description of each of the other activities specified. **There can only be one principal activity.**

TABLE B.7.1 THIRD AND FOURTH SCHEDULES OF THE WASTE MANAGEMENT ACTS 1996 TO 2010

Waste Management Acts 1996 to 2010					
Third Schedule Waste Disposal Operations		Y/N	Fourth Schedule Waste Recovery Operations		Y/N
D 1	Deposit into or on to land (e.g. including landfill, etc.).		R 1	<p>Use principally as a fuel or other means to generate energy: This includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above:</p> <ul style="list-style-type: none"> - 0.60 for installations in operation and permitted in accordance with applicable Community acts before 1 January 2009, - 0.65 for installations permitted after 31 December 2008, <p>using the following formula, applied in accordance with the reference document on Best Available Techniques for Waste Incineration: Energy efficiency = (Ep - (Ef + Ei)) / (0.97x(Ew+Ef)) where—</p> <p>‘Ep’ means annual energy produced as heat or electricity and is calculated with energy in the form of electricity being multiplied by 2.6 and heat produced for commercial use multiplied by 1.1(GJ/year),</p> <p>‘Ef’ means annual energy input to the system from fuels contributing to the production of steam (GJ/year),</p> <p>‘Ew’ means annual energy contained in the treated waste calculated using the net calorific value of the waste (GJ/year),</p> <p>‘Ei’ means annual energy imported excluding Ew and Bf(GJ/year),</p> <p>‘0.97’ is a factor accounting for energy losses due to bottom ash and radiation.</p>	
D 2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.).		R 2	Solvent reclamation/regeneration.	
D 3	Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.).		R 3	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation	P

WASTE Application Form

				processes), which includes gasification and pyrolysis using the components as chemicals.	
D 4	Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.).		R 4	Recycling/reclamation of metals and metal compounds.	
D 5	Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.).		R 5	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.	
D 6	Release into a water body except seas/oceans.		R 6	Regeneration of acids or bases.	
D 7	Release to seas/oceans including sea-bed insertion.		R 7	Recovery of components used for pollution abatement.	
D 8	Biological treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12.		R 8	Recovery of components from catalysts.	
D 9	Physico-chemical treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcinations, etc.).		R 9	Oil re-refining or other reuses of oil.	
D 10	Incineration on land.		R 10	Land treatment resulting in benefit to agriculture or ecological improvement.	
D 11	Incineration at sea (this operation is prohibited by EU legislation and international conventions).		R 11	Use of waste obtained from any of the operations numbered R 1 to R 10.	Y
D 12	Permanent storage (e.g. emplacement of containers in a mine, etc).		R 12	Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11).	
D 13	Blending or mixing prior to submission to any of the operations numbered D 1 to D 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12).		R 13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).	Y
D 14	Repackaging prior to submission to any of the operations numbered D 1 to D 13.				
D 15	Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).				

TABLE B.7.2 MAXIMUM ANNUAL TONNAGE

The maximum annual tonnage of waste to be handled at the site should be indicated and the year to which the quantity relates indicated.

Maximum Annual Tonnage (tpa)	20,000
Year	2014

B.7.3 FEES

State each class of activity for which a fee is being submitted as per Part I of the Second Schedule of the Waste Management (Licensing) Regulations 2004, S.I. No. 395 of 2004. Note: two fees are required if disposal and recovery are to occur.

Waste Activity	Fee (in €)
Disposal of Waste (appropriate disposal activity 1.1 – 3.3)	€10,000
Recovery of Waste (4)	

The fee is based on an application for the disposal of waste (other than hazardous waste) at a facility (other than a landfill facility) where the annual intake is less than 25,000 tonnes.

TABLE B.7.4 (FOR A LANDFILL APPLICATION)

STATE WHICH OF THE FOLLOWING IS RELEVANT TO THE CURRENT APPLICATION.

(a) landfill for hazardous waste	<input type="checkbox"/>
(b) landfill for non-hazardous waste	<input type="checkbox"/>
(c) landfill for inert waste	<input type="checkbox"/>

Not applicable

B.8 SEVESO II DIRECTIVE

State whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous substances) Regulations, 2000 (S.I. No. 476 of 2000), apply.

Regulations Apply	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
--------------------------	------------------------------	--

If yes, **Attachment B.8** should include the relevant details. Supporting information, as well as copies of any Hazardous Operation Studies (HAZOP) carried out for the site, should also be included in the attachment.

Not applicable

SECTION C MANAGEMENT OF THE FACILITY

Advice on completing this section is provided in the *Guidance Note*.

C.1 Technical Competence and Site Management

This information should form **Attachment C 1**.

Details of the applicant’s experience and qualifications, along with that of other relevant employees, should be summarised as shown below. Statements of duties, responsibilities, experience and qualifications should be submitted for each position named below. Additional information, including the management structure and an organisational chart, should be included in **Attachment C 1**.

Name	Position	Duties and Responsibilities	Experience /Qualifications
Paul Flynn	Operations director	Overall management of the facility	25 years operation of transport and Agribusiness
T.J Moloney	General manager	Day to Day management of the plant and workforce	BSc Ag 18 years at management level within the Agribusiness sector
Frances Flynn	Financial director	Financial planning and Accounts management	25 years Administration management of transport and Agribusiness
Peter Nagle	Field Advisor	Sourcing and testing of raw material. Monitoring of AD Process	BSc Ag 11 years experience operating within the Agribusiness sector

Refer to attachment C1 for full details of the site management including Technical competence.

C.2 Environmental Management System

Attachment C 2 should contain the Environmental Management System (EMS) details required.

Refer to attachment C2 for full details of the EMS

C.3 Hours of Operation

Attachment C 3 should contain details of hours of operation for the waste facility, civic waste facilities and other facilities.

WASTE Application Form

- (a) Proposed hours of operation.
 - (b) Proposed hours of waste acceptance/handling.
 - (c) Proposed hours of any construction and development works at the facility and timeframes (required for landfill facilities).
 - (d) Any other relevant hours of operation expected.
- Refer to attachment C3 for full details of the hours of operation

C.4 Conditioning Plan

Address as **Attachment C 4**, in the case of a LANDFILL Application, and only for the review of a Landfill Waste Licence.

Not applicable

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION D INFRASTRUCTURE & OPERATION

D.1 Infrastructure

Complete the following table detailing the site infrastructure. **Attachment D 1** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.1. Additional advice on completing this section is provided in the application *Guidance Note*.

Table D.1. Infrastructure		y/n	Comments
D.1.a	Site security arrangements including gates and fencing	Y	See attachment D1
D.1.b	Designs for site roads	Y	See attachment D1
D.1.c	Design of hardstanding areas	Y	See attachment D1
D.1.d	Plant	Y	See attachment D1
D.1.e	Wheel-wash	Y	See attachment D1
D.1.f	Laboratory facilities	Y	See attachment D1
D.1.g	Design and location of fuel storage areas	Y	See attachment D1
D.1.h	Waste quarantine areas	Y	See attachment D1
D.1.i	Waste inspection areas	Y	See attachment D1
D.1.j	Traffic control	Y	See attachment D1
D.1.k	Sewerage and surface water drainage infrastructure	Y	See attachment D1
D.1.l	All other services	Y	See attachment D1
D.1.m	Plant sheds, garages and equipment compound	Y	See attachment D1
D.1.n	Site accommodation	Y	See attachment D1
D.1.o	A fire control system, including water supply	Y	See attachment D1
D.1.p	Civic amenity facilities	N	
D.1.q	Any other waste recovery infrastructure	N	
D.1.r	Composting infrastructure	N	
D.1.s	Construction and Demolition waste infrastructure	N	
D.1.t	Incineration infrastructure (if applicable). Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive	N	
D.1.u	Any other infrastructure	N	

D.2 Facility Operation

In **Attachment D 2** describe the plant, methods, processes and operations of the waste facility, as required by the *Guidance Note*.

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
----------------------------	---	-----------------------------	---

LANDFILLS

The following Sections D3 to D7 should only be completed for Landfill Applications. Reference should be made to the Agency landfill manual ‘Landfill Site Design (2000)’ when completing this section.

Sections D3 to D7 are not applicable to this application

D.3 Liner System

Complete the following table regarding the liner system to be used for the landfill/landfill extension and detail the information requested as **Attachment D.3**. **Items D3c to D3g should only be completed for immediate projects only (ie Years 1 & 2)**. A schedule of Liner construction activities for the medium to long term need only be listed in item D3a below, since Condition 3 of any licences granted will provide reporting requirements for any future projects.

TABLE D.3 LINER SYSTEM

		y/n	Comments
D.3.a	Provide information to fulfil Annex 1 of the Landfill Directive		
D.3.b	What type of liner system is specified?		
D.3.c	Has a Quality Control Plan been specified?		
D.3.d	Has a Quality Assurance Plan been specified?		
D.3.e	Have independent, third-party supervision, testing and controls been specified?		
D.3.f	Have basal gradients for all cells and access ramps to the cells been designed?		
D.3.g	Has a leak detection survey been specified?		

D.4 Leachate Management

Complete the following table detailing leachate management arrangements. Further information should be included in **Attachment D.4**.

TABLE D.4.1 LEACHATE MANAGEMENT ARRANGEMENTS

		y/n	Comments
D.4.a	Is there a Leachate Management Plan?		
D.4.b	Have annual quantities of leachate been calculated?		
D.4.c	Has the total quantity of leachate been calculated?		
D.4.d	Have the size of the cells been specified taking account of the water balance calculations?		
D.4.e	Has a leachate collection system been specified?		
D.4.f	Has a leachate storage system been specified?		
D.4.g	Has a system for monitoring the level of leachate in the waste been designed?		
D.4.h	Is leachate recirculation proposed/practised?		
D.4.i	Has leachate treatment on-site been specified?		
D.4.j	Has leachate removal been specified?		

D 5 Landfill Gas Management

All landfill sites should have suitable arrangements for the management of landfill gas. **Attachment D.5** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.5. **Items D5g to D5m should only be completed for immediate or current gas collection projects only (ie Years 1 & 2)**. A schedule of gas management aspects for the medium to long term need only be listed in item D5f below, since Condition 3 of any proposed decision/licence will provide reporting requirements for any future projects.

Table D.5. Landfill Gas Management

		y/n	Comments
D.5a	<p>Is there a Landfill Gas Management Plan?</p> <p>Provide estimates of the volumes of landfill gas which will be produced by the waste disposed of in the site for the next 20 years, and compare to the EPER list for methane:</p>		
D.5b	Is there a passive venting system?		
D.5c	Does the passive system cover all of the filled area?		
D.5d	Have gas alarm systems been installed in the site buildings?		
D.5e	Have measures been installed to prevent landfill gas migration (e.g. barriers)?		
D.5f	Has a time-scale been proposed for the installation of landfill gas infrastructure?		
D.5g	Is gas flaring undertaken at the site?		
D.5h	Is there an active (i.e., pumped) landfill gas extraction system?		
D.5i	Does the active system cover all of the filled area?		
D.5j	Is landfill gas used to generate energy at the site?		
D.5k	Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate?		
D.5l	Has a maintenance programme for the control system been specified?		
D.5m	Has a condensate removal system been designed?		

D.6 Capping System

Complete the following table detailing the design of the capping system. **Attachment D.6** should contain the appropriate documentation. **Items D6e to D6k should be completed for immediate projects only (ie Years 1 & 2).** Condition 10 of any proposed decision/licence will provide reporting requirements for capping requirements beyond this timeframe.

Table D.6 Capping System

		y/n	Comments
D.6a	Has the daily cover been specified?		
D.6b	Has the intermediate cover been specified?		
D.6c	Has the temporary capping been specified?		
D.6d	Has the Capping System been designed and does it meet the requirements of the Landfill Directive Annex 1 (3.3)?		
D.6e	Does the Capping System include a flexible membrane liner?		
D.6f	Have all capping materials been specified?		
D.6g	Has a Method Statement for construction been produced?		
D.6h	Has a Quality Control Plan been produced?		
D.6i	Has a Quality Assurance Plan been produced?		
D.6j	Has a programme for monitoring landfill stability been developed?		
D.6k	Has a programme for monitoring landfill settlement been developed?		

SECTION E EMISSIONS

Give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made.

The applicant should address in particular any emission point where the substances listed in the Schedule of S.I. 394 of 2004 are emitted.

E.1 Emissions to Atmosphere

Details of all point emissions to atmosphere should be supplied. Table E.1.(i) (for Landfill Gas Flare emissions) must be completed for all landfills with a flare. Complete Table E.1(ii) and E.1(iii) for all other main emission points, including stack sources (incinerator stacks, landfill gas utilisation plants, air handling unit emissions etc.). Complete Table E.1(iv) for minor/fugitive/ground emission points. Refer to attachment E.1 for full details of Emissions to atmosphere including completed tables E.1 (ii), Table E.1 (iii)

E.2 Emissions to Surface Waters

Attachment E.2 Tables E.2(i) and E.2(ii) should be completed where relevant. Refer to attachment E.2 for full details of Emissions to surface water and completed tables E.2(i) and E.2(ii)

E.3 Emissions to Sewer

Attachment E.3 Tables E.3 (i) and E.3 (ii) should be completed, where relevant. Not Applicable

E.4 Emissions to Groundwater

Describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6, and 7 of Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances.

Table E.4(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment E.4**
Refer to attachment E.4 for full details of Emissions to groundwater and completed tables E.4 (i)

E.5 Noise Emissions

Give particulars of the source, location, nature, level, and the period or periods during which the noise emissions are made or are to be made.

Table E.5(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment E.5**

Refer to attachment E.5 for full details of noise emissions and completed tables E.5 (i)

E.6 Environmental Nuisances

Attachment E.6 should contain the appropriate documentation. Information provided should follow the sequence, and use the headings as relevant established in Table D.6. Additional advice on completing this section is provided in the *Guidance Note*.

TABLE E.6 ENVIRONMENTAL NUISANCES

Bird Control	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Dust Control	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Fire Control	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Litter Control	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Traffic Control	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Vermin Control	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Road Cleansing	Control method specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
	Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>

SECTION F CONTROL & MONITORING

F.1: Treatment, Abatement and Control Systems

Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation/facility. Details of treatment/abatement systems (air and effluent emissions) should be included, together with appropriately scaled schematics ($\leq A3$) as appropriate.

For each Emission Point identified complete Table F.1 of the Annex, and include detailed descriptions and appropriately scaled schematics ($\leq A3$) of all abatement systems.

Attachment F.1 should contain any supporting information.
Refer to attachment F.1 for full details of Treatment, Abatement and Control Systems.

F.2- F. 9. Monitoring and Sampling Points

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as **Attachments F.2 to F.6** and meet the advice published by the Agency in the relevant BAT Note. For Landfills the additional **Attachments F.7 to F.8** should be completed. Furthermore for a landfill application the applicant must refer to the Agency *Landfill Monitoring Manual (2003)* for further details on monitoring requirements for proposed facilities.

Include details of monitoring/sampling locations and methods.

F.2 Air
- to include Dust, Odour

Monitoring Arrangements specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>

F.3 Surface Water

Monitoring of surface water shall be carried out at not less than two points, one upstream from the waste facility and one downstream.

Monitoring Arrangements specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>

F.4 Sewer Discharge

Monitoring of sewer discharge shall be carried out at the point specified by the local authority/Agency.

Monitoring Arrangements specified	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
Attachment included	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>

F.5 Groundwater

Groundwater monitoring is required at all landfill facilities; and certain other waste facilities depending on waste activities and the underlying aquifer vulnerability.

Monitoring Arrangements specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>

F.6 Noise

Monitoring Arrangements specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>

F.7 Meteorological Data

Monitoring Arrangements specified	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>

Application for Landfills require the additional Attachments F.7 to F.8, to be completed:

F.8 Leachate

Monitoring Arrangements specified	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
Attachment included	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>

F.9 Landfill Gas **Not applicable**

Complete each of the following tables to show whether information has been included on aspects of landfill gas monitoring. **Attachment F.9** should also contain information to show whether the data given in Tables F.9.(a) and F.9(b) below represents actual or anticipated data. Complete Table F.9 as follows:

Table F.9 (a) Landfill Gas Monitoring for existing landfill gas flares / utilisation plants

Parameter	Concentration (mg/Nm ³)	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
Inlet					
Methane (CH ₄) % v/v					
Carbon dioxide (CO ₂) %v/v					
Oxygen (O ₂) % v/v					
Outlet					
Volumetric Flow Rate					
SO ₂					
Nox					
CO					
Particulates					
TA Luft Class I, II, III organics					
Hydrochloric acid					
Hydrogen Fluoride					

Table F.9(b) Landfill Gas Monitoring

Parameter	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
	Gas boreholes / vents/ wells/ perimeter locations	Facility Office		
Methane (CH ₄) % v/v				
Carbon Dioxide (CO ₂) % v/v				
Oxygen (O ₂) % v/v				
Atmospheric Pressure				
Temperature				

Table F.9 (c) Landfill Gas Infrastructure

Equipment	Monitoring Frequency	Information Included Y/N	Monitoring Action	Information Included Y/N
Gas Collection System				
Gas Control System				

Monitoring Arrangements specified	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
Monitoring points identified, (plus 12-figure grid references)	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>
Attachment included	yes <input type="checkbox"/>	no <input type="checkbox"/>	not applicable <input checked="" type="checkbox"/>

SECTION G RESOURCES USE & ENERGY EFFICIENCY

G.1 Raw Materials, Substances, Preparations and Energy

Attachment G.1 should contain a list of all raw, product and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity. Information on any insecticides, herbicides or rat poisons etc. should also be provided with their respective data and safety sheets. The Standard Forms, provided in Annex 1, should be used in the description of these materials, substances, etc., where relevant. Additional advice on completing this section is provided in the *Guidance Note*.

Refer to attachment G table G1 for details of Raw Materials and Substances

Attachment included	yes <input checked="" type="checkbox"/> no <input type="checkbox"/> not applicable <input type="checkbox"/>
----------------------------	---

G.2 Energy Efficiency

A description of the energy used in or generated by the activity must be provided in **Attachment G.2**.

Attachment included	yes <input checked="" type="checkbox"/> no <input type="checkbox"/> not applicable <input type="checkbox"/>
----------------------------	---

For inspection purposes only. Consent of copyright owner required for any other use.

SECTION H MATERIALS HANDLING

H.1 Waste Types and Quantities – Existing & Proposed

Provide an estimation of the quantity of waste likely to be handled in relation to each class of activity applied for. This information should be included in Table H.1(a).

TABLE H.1 (A). QUANTITIES OF WASTE IN RELATION TO EACH CLASS OF ACTIVITY APPLIED FOR

Waste Management Acts 1996 to 2010 3rd Schedule (Disposal) Operations			Waste Management Acts 1996 to 2010 4th Schedule (Recovery) Operations		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class D 1			Class R 1		
Class D 2			Class R 2		
Class D 3			Class R 3	<input checked="" type="checkbox"/>	20,000
Class D 4			Class R 4		
Class D 5			Class R 5		
Class D 6			Class R 6		
Class D 7			Class R 7		
Class D 8			Class R 8		
Class D 9			Class R 9		
Class D 10			Class R 10	<input checked="" type="checkbox"/>	20 000
Class D 11			Class R 11	<input checked="" type="checkbox"/>	20 000
Class D 12			Class R 12		
Class D 13			Class R 13	<input checked="" type="checkbox"/>	20 000
Class D 14					
Class D 15					

In Table H. 1 (B) provide the annual amount of waste handled/to be handled at the facility. Additional information should be included in **Attachment H.1**. The tonnage per annum should be given of that expected for the life of the licence, with at least the next five years tonnages provided. For Landfill Review applications provide an estimate of the quantity of waste already deposited in (i) lined cells; (ii) unlined cells.

Refer to attachment H for additional information on the proposed waste types and quantities to be handled at the facility.

TABLE H.1(B) ANNUAL QUANTITIES AND NATURE OF WASTE (Proposed)

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
2014	20,000		20,000
2015	20,000		20,000
2016	20,000		20,000
2017	20,000		20,000
2018	20,000		20,000

A detailed inventory of the types and quantities of wastes currently handled at the site and proposed to be handled should be submitted as Table H.1 (C).

As this is a new waste management facility and there is no existing waste, only proposed waste quantities are provided. This application is being made for the treatment of up to 20,000 TPA in total of non hazardous organic feedstock. It is not possible at this stage to provide a detailed breakdown of the anticipated quantities of each waste type. Corresponding European Waste Catalogue (EWC) codes are also provided in the final column.

TABLE H.1 (C) WASTE TYPES AND QUANTITIES

WASTE TYPE	TONNES PER ANNUM (proposed)	TOTAL (over life of site) tonnes	Classification from EWC Catalogue
Household	Not Applicable	Not Applicable	
Commercial	3000 (1)	60,000	02 06 01
	5000 (2)	100,000	02 01 06
	5000 (3)	100,000	02 01 06
Sewage Sludge	Not Applicable	Not Applicable	
Construction and Demolition	Not Applicable	Not Applicable	
Industrial Non-Hazardous Sludges	Not Applicable	Not Applicable	
Industrial Non-Hazardous Solids	Not Applicable	Not Applicable	
Hazardous *(Specify detail in Table H 1.2)	Not Applicable	Not Applicable	
Inert Waste imported for restoration purposes			

WASTE Application Form

- (1) The facility will process 3000 tonnes per annum of waste from the bakery industry.
- (2) The facility will process 5000 tonnes per annum of cattle and pig slurry.
- (3) The facility will process 5000 tonnes per annum of category 2 ABP-Belly grass

*** TABLE H.1.2 HAZARDOUS WASTE TYPES AND QUANTITIES**

HAZARDOUS WASTE	DETAILED DESCRIPTION * REFERENCE SHOULD BE MADE TO THE RELEVANT EUROPEAN WASTE CATALOGUE CODES AS PRESENTED BY COMMISSION DECISION 2000/532/EC	Tonnes Per Annum (Existing)	(Tonnes Per Annum Proposed)
Waste Oil			
Oil filters			
Asbestos			
Paint and Ink			
Batteries			
Fluorescent Light Bulbs			
Contaminated Soils			
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			

Attachment H.1 should contain any relevant additional information.
 No hazardous wastes will be processed at the facility.

It should be noted that an applicant may be issued with a licence which restricts the type of wastes which may be deposited.

H.2 Waste Acceptance Procedures

Refer to Attachment H2 for details of waste acceptance procedures to be adopted at the facility.

Procedures for checking waste loads as they arrive at the facility must be included. These should follow the requirements of the Agency’s Waste Acceptance Manual. A copy of these procedures and other associated documentation should be included as **Attachment H.2.**

H.3 Waste Handling

Waste handling and the operating procedures used at the facility including waste treatment processes should be described in **Attachment H.3.** Included in the attachment should be information on the plant used on site and on the methods and processes for handling waste on-site. Special requirements hold for contaminated soil facilities, see *Guidance Note.*

Refer to Attachment H3 for details of waste acceptance procedures to be adopted at the facility.

In addition, an application for a Landfill requires Section H.3.a to be completed:

H.3a Waste Handling at the Landfill Facility Not applicable

State whether all waste will be subject to treatment prior to landfilling. Provide information as to the quantities of biodegradable municipal waste and how the targets of the Landfill Directive (1999/31/EC) relating to that waste type are to be achieved. In particular describe how the following will be achieved:

- (a) a reduction by 16/07/06 to 75% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
- (b) a reduction by 16/07/09 to 50% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
- (c) a reduction by 16/07/16 to 35% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
- (d) Evidence should be provided to show that energy will be used efficiently.

H.4 Waste Arisings Not applicable

Waste Arisings should be considered for all contaminated soil applications. Details of all waste materials generated on the site including, name, description and nature as well as the source(s) should be identified. The quantities of each type of waste generated on an annual/monthly basis should be calculated and stated in Tables H.4(i) and H.4(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m³) and tonnage (t) for their waste stream.

SECTION I EXISTING ENVIRONMENT & IMPACT OF THE FACILITY

Detailed information is required to enable the Agency to assess the existing environment. This section requires the provision of information on the ambient environmental conditions at the site prior to the commencement of waste management activities or prior to the receipt of a review application.

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

A full EIS has been prepared for the facility; please refer to the sections as outlined below.

I.1. Assessment of atmospheric emissions

Describe the existing environment in terms of air quality with particular reference to ambient air quality standards. Refer to chapter 5 sections 5.2 and 5.3 of the EIS for a description of the air quality.

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to the atmosphere are likely to impair the environment. Refer to chapter 5 section 5.5 of the EIS

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made. Refer to chapter 5 section 5.5 of the EIS

Attachment I.1 should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required. Refer to chapter 5 section 5.2 and 5.3 of the EIS

I.2. Assessment of Impact on Receiving Surface Water

Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Table I.2(i) should be completed Refer to Attachment I.2.

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to water are likely to impair the environment. Refer to attachment I.2.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made. Refer to attachment I.2.

Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment I.2.**

I.3. Assessment of Impact of Sewage Discharge.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other supporting information should form **Attachment I.3.**

Not applicable there is no Sewage discharge

I.4 Assessment of impact of ground/groundwater emissions

The scope and detail of this assessment will depend to a large extent on the extent and type of ground emissions at any site, which in turn are related to the risk. Details should be included in **Attachment I.4**. Comprehensive guidelines are contained in the *Application Guidance Note*, and include particular requirements for landfill and brownfield facilities.

Refer to attachment I.4.

Describe the existing groundwater quality. Tables I.4(i) should be completed.

I.5 Ground and/or groundwater contamination

Summary details of known ground and/or groundwater contamination, historical or current, on or under the site must be given.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, appropriately scaled plans/drawings ($\leq A3$), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

Not applicable

I.6 Noise Impact.

Give details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Ambient noise measurements

Complete Table I.6(i) in relation to the information required below:

- (i) State the maximum Sound Pressure Levels which will be experienced at typical points on the boundary of the operation. (State sampling interval and duration)
- (ii) State the maximum Sound Pressure Levels which will be experienced at typical noise sensitive locations, outside the boundary of the operation.
- (iii) Give details of the background noise levels experienced at the site in the absence of noise from this operation.

Prediction models, appropriately scaled maps ($\leq A3$), diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment I.6**.

Refer to attachment I.6.

I.7 Assessment of Ecological Impacts & Mitigation Measures

The ecology of the site and the surrounding area should be assessed in the vicinity of the largescale waste facilities such as landfill or incinerator developments. An assessment of the ecology should form **Attachment I.7**. Comprehensive guidelines are contained in the *Application Guidance Note*

Refer to attachment I.7.

SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE

Describe the existing or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage.

Also outline what provisions have been made for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods.

Describe the arrangements for abnormal operating conditions including start-up, leaks, malfunctions or momentary stoppages.

Supporting information should form **Attachment J**.
Refer to attachment J

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
---------------------	---	-----------------------------	---

For inspection purposes only.
Consent of copyright owner required for any other use

SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE

Describe the existing or proposed measures to minimise the impact on the environment after the activity or part of the activity ceases operation, including provision for post-closure care of any potentially polluting residuals.

For Landfill Applications, capping proposals are required, and reference should be made to the *Landfill Manual on 'Restoration and Aftercare'* published by the Agency, when completing this section.

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
----------------------------	---	-----------------------------	---

SECTION L STATUTORY REQUIREMENTS

L. 1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (f)] of the Waste Management Acts 1996 to 2003 will be met.

Applicants should also describe how the proposed facility will comply with the requirements of BAT. In particular reference should be made to the considerations referred to in Annex IV of Council Directive 96/61/EC concerning integrated pollution prevention and control.

Attachment L.1 should contain the documentation requested above, along any relevant additional information.

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
----------------------------	---	-----------------------------	---

L.2 Fit and Proper Person

The WMA in Section 40(4)(d) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant (if the applicant is not a local authority) is a fit and proper person. Section 40(7) of the WMA specifies the information required to enable a determination to be made by the Agency.

- Indicate whether the applicant or other relevant person has been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

WASTE Application Form

- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees (Link to Section C.1 of the application).
- Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity (Link to Section K of the application).

Supporting information should be included as **Attachment L 2** with reference to where the information can be found in the application.

Attachment included	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	not applicable <input type="checkbox"/>
----------------------------	--	------------------------------------	--

*For inspection purposes only.
Consent of copyright owner required for any other use.*

SECTION M DECLARATION

Declaration

I hereby make application for a licence / revised licence, pursuant to the provisions of the Waste Management Acts 1996 to 2003 and Regulations made thereunder.

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website. This consent relates to this application itself and to any further information, submission, objection, or submission to an objection whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by : Thomas Flynn Date : 24-7-12
(on behalf of the organisation)

Print signature name: THOMAS FLYNN

Position in organisation : DIRECTOR

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Company stamp or seal:

Appendices

Appendix A1	Drawing 111_001_803 Infrastructure associated with waste acceptance
Appendix A2	Drawing 111_001-804 Process Flow diagram
Appendix B1	Drawing 111_001_800 Site Location/ownership plan
Appendix B2	Drawing 111_001_801 Site Layout Plan
Appendix B3	Planning permission and conditions
Appendix B4	Site Notice and newspaper ad
Appendix B5	Letter to planning Authority
Appendix B6	Certificate of Incorporation
Appendix D1	Civil engineering specification
Appendix D2	Site suitability assessment
Appendix D3	Drawing 111_001_808 Foul Sewer Layout Drawing 111_001_806 General services layout Drawing 111_001_807 Surface water layout Drawing 111_001_802 Roads Make- up Drawing 111_001_809 Watermain layout Drawing 111_001_810 Rainwater Harvesting Layout
Appendix E1	Table main emissions to atmosphere
Appendix E2	Dispersion Modelling Assessment report
Appendix E3	Table main emissions to surface water
Appendix E4	Table main emissions to groundwater
Appendix E5	Dust monitoring proposals
Appendix E6	Traffic and transport report
Appendix E7	Drawings 111-001_812 and 111_001_821 emission point monitoring locations

Attachment B General

Attachment B.1 Company Details

B.1.1 Branch Registration and Certificate of Incorporation

Refer to appendix B6 for the company Certificate of Incorporation

B.1.2 Registration Details

The applicant is registered in Ireland as Bio Agrigas Ltd with company registration number 496273

B.1.3 Company Directors

The authorised representatives of Bio Agrigas are:

Frances Flynn
John Flynn
Paul Flynn
Thomas Flynn

B.1.4 Site Ownership

A site ownership plan drawing 111_001_800 is located in Appendix B1.

Attachment B.2 Location of activity

The facility is located at Newdown, The Downs, Mullingar, Co Westmeath
Drawings can be found in the appendices as listed in Table B.2.a below.

Table B.2.a: Location of Drawings

Drawing	Drawing Number	Location
Site Plan	081_001_801	Appendix B2
Location Map /ownership	081_001_800	Appendix B1
Services Plan	081_001_806	Appendix D3
Watermain layout	081_001_809	Appendix D3
Foul sewer layout	081_001_808	Appendix D3
Surface water layout	081_001_807	Appendix D3
Rain water collection layout	081_001_810	Appendix D3

Attachment B.3 Planning Authority

A copy of the planning permission including all conditions is included in appendix B3.

Attachment B.4 Sanitary Authority

Not applicable

Attachment B.6 Notices and Advertisements

Refer to drawing no 111_001_800 located in appendix B1 which shows the location of the site notice and to appendix B4 for a copy of the site notice and newspaper advertisement.

Attachment B.7 Type of Waste Activity Tonnages and Fees

B.7.1 Principle Activity (Fourth Schedule)

The principal class of activity under the Fourth Schedule to the Waste Management Acts 1996 to 2010, as amended by the European Communities (Waste Directive) Regulations, 2011, will be as follows:

Class 3: *Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.*

The proposed bio energy facility will use anaerobic digestion technology to treat non hazardous organic feedstock to generate electrical power & heat and to produce a useful solid soil conditioner. The anaerobic digesters will be designed to receive c.20,000 tonnes/year energy crops and liquid and solid wastes with 10,000 tonnes/year sourced mainly from the local area including agri-industry processing wastes, food processing wastes and will also process Category 2 material which comprises low risk animal by-products derived from healthy animals.

Deliveries will only be accepted for processing from sources of wastes that have been previously characterised as suitable for treatment at the facility. The non-hazardous organic feedstock planned to be treated at the waste facility are currently disposed of through land spreading and/or export.

One tank is foreseen for the storage of liquid waste streams which can be pumped directly towards the mixing tank. The solid waste streams are first crushed and collected in a storage container with a push floor. The solid waste streams are transported to the mixing tank via a series of transport screws.

The liquid, pre-treated, waste streams and dilution water are subsequently mixed in the mixing tank. A top entry mixer ensures an intensive mixing of the three separate flows, solids, liquids and dilution water. The mixing tank also acts to remove heavy objects like stones which sink to the bottom of the tank and are removed through a scraper.

The input mix is pumped from the mixing tank to the hydrolysis tank where the first degradation of the biomass is achieved.

Hydrolysis is theoretically the first step of AD, during which the complex organic matter (polymers) is decomposed into smaller units (mono- and oligomers). During hydrolysis, polymers like carbohydrates, lipids, nucleic acids and proteins are converted into glucose, glycerol, purines and pyridines. Hydrolytic microorganisms excrete hydrolytic enzymes, converting biopolymers into simpler and soluble compounds.

A variety of microorganisms are involved in hydrolysis, which is carried out by exoenzymes, produced by those microorganisms which decompose the un-dissolved particulate material.

The products resulted from hydrolysis are further decomposed by the microorganisms involved and used for their own metabolic processes.

From the pre-storage tanks all material will pass through a macerator where shredding of waste will occur and particle sizes will be reduced to < 12mm to ensure easier transport of waste through pipes and the heat exchanger. The input mix is further pumped towards the digesters.

The anaerobic degradation of the organic waste streams will occur under thermophilic conditions which mean that the temperatures are maintained between 50°C to 55°C. In order to maintain the design temperature of 54°C, a recycled digestate is heated up in the heat exchanger using the HT heat from the CHP unit. The heated recycled digestate is mixed with the influent flow by means of an inline mixer.

The digesters consist of a Continuously Stirred Tank Reactor (CSTR) with a double membrane roof as gas storage. The mixing is done by four side entry mixers, 2 mixers at mid-height and 2 mixers at the gas-liquid phase to avoid crust formation. The produced biogas is sent to a desulphurisation unit and afterwards to the CHP unit.

B.7.2 Other Relevant Activities (Fourth Schedule)

The following other activities will take place at the site under the Fourth Schedule to the Waste Management Acts 1996 to 20010, as amended by the European Communities (Waste Directive) Regulations, 2011,

Class 11: Use of waste obtained from any of the operations numbered R 1 to R 10.

This activity refers to the use off- site of the electricity and digestate produced as a result of the anaerobic digestion process.

The biogas produced during the digestion process is desulphurised in a BELGAS® washer and sent to the CHP units. It is planned to use two CHP units to facilitate the process, the type of engine selected is the Jenbacher J316GMD. With this selection, one CHP engine will run at 100% charge and the other at a charge of 65%.

The use of the different heat sources from the CHP unit is summarised below:

- Part of the HT heat is used for maintaining the temperature in the anaerobic reactor at 54°C.
- Part of the HT heat is used for the hygeinisation process

It is envisaged that the remaining heat could be put to use external to the application site and could facilitate premises in the area subject to approval with the local authority.

The effluent from the digester is hygienised in order for the liquid and solid digestate to be used as an agricultural product. Before entering the hygienisation unit, the digestate is continuously heated up in a heat exchanger using the HT-heat form the CHP unit. The heated digestate is pumped into an isolated circular tank where the temperature is maintained at 70°C for at least a one hour period.

Class 13: Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

This activity refers to the storage on site of the agri-industry slurries, energy crops, food processing wastes prior to processing in the anaerobic digesters. This is also to allow for the temporary storage of unacceptable waste in a designated quarantine area at the facility.

Each waste load arriving at the facility will be registered by weight, waste type and supplier. Analytical data regarding testing conducted at source prior to arrival at the facility will also be documented on arrival. A visual assessment of each load will be conducted where suspect loads will be directed for quarantine. Any wastes not deemed acceptable at the site will be returned to the waste producer.

Once a preliminary waste analysis is confirmed to be within the defined parameters for acceptable waste, the waste load will pass into the reception bin and is auger fed to the mixing tanks. Waste which fails to meet the strict waste acceptance criteria will not be accepted into the facility for treatment, and will be returned to the waste producer.

All wastes entering the facility which meets the initial waste acceptance criteria will be directed to the waste reception building. The waste reception building will utilise an air curtain, or similar, immediately inside the door, any malodorous air will be directed to a biofilter via an extraction fan.

Attachment C Management of the Facility

C 1 Technical Competence and Site Management

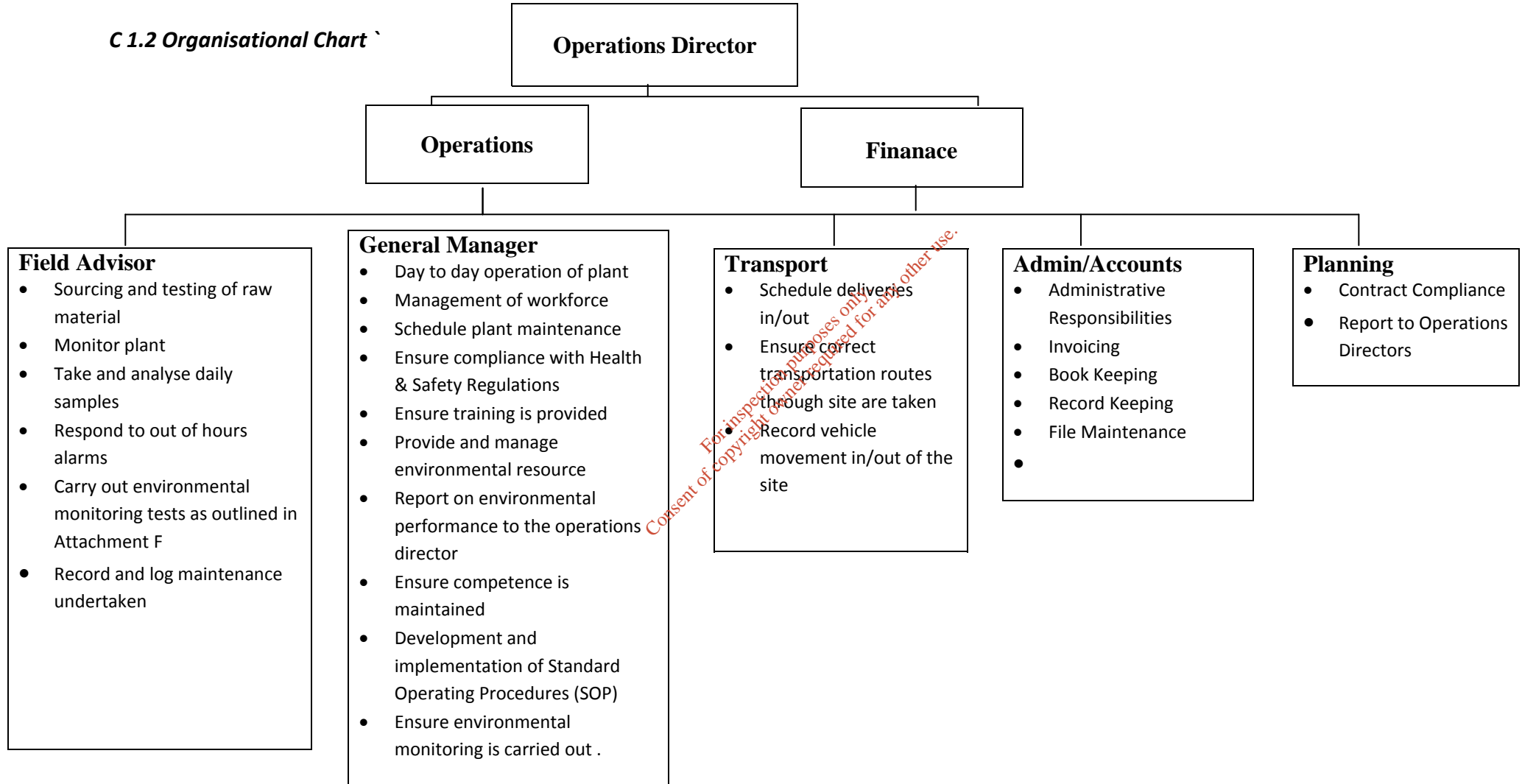
Details of the applicant's experience and qualifications, along with that of other relevant employees, are summarised below.

Name	Position	Duties and Responsibilities	Experience/qualifications
Paul Flynn	Operations director	Overall management of the facility	25 years experience in the operating a transport and agribusiness
TJ Moloney	General Manager	Overall Responsibility for the day to day operation of the facility	BScAg 18 years as manager within the agribusiness sector
Frances Flynn	Financial director		25 years Administration of transport and agribusiness
Peter Nagle	Field Advisor		BScAg 11 years experience operating within the agribusiness sector

C 1.1 Management Structure

A preliminary management structure with roles and responsibilities is set out in the organisational chart. The roles of various Management personnel will evolve as the facility moves from construction to operational phase. Nonetheless the main roles will encompass the responsibility of Managing Director, Operations director and Finance director. Each of these directors will designate responsibility for various parts of the operation to individuals within their team. A formal set of Standard Operation procedures will be developed throughout the commissioning phase of the plant installation. These SOP's will continuously evolve with the development of the facility and form the basis of the integrated management system.

C 1.2 Organisational Chart



C 2 Environmental Management System.

An environmental management system (EMS) will be prepared for the Bio Agrigas facility and will form part of the integrated management system for the site.

An EMS to reflect proposed waste activities will be prepared and maintained in accordance with the conditions of the waste licence once granted and EPA guidelines. The EMS will be established prior to commencement of waste activities at the site and will be updated on an annual basis.

The EMS will include as a minimum the following elements, which relate directly to standard conditions of an EPA waste licence concerning EMS requirements (typically Condition 2 Management of Facility of an EPA waste licence):

C2.1 Management and Reporting Structure

Details of the on-site management structure indicating in particular responsibility levels for environmental management will be provided.

C2.2 Schedule of Environmental Objectives and Targets

A Schedule of Environmental Objectives and Targets will be prepared. This will as a minimum provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency. The schedule will include time frames for the achievement of set targets and will address a five year period as a minimum. The schedule will be reviewed annually and amendments notified to the EPA for agreement as part of the Annual Environmental Report (AER).

C2.3 Environmental Management Programme (EMP)

An EMP will be prepared and will include a time schedule for achieving the Environmental Objectives and Targets identified under bullet 2 above.

The EMP will include:

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

The EMP shall be reviewed annually. A report on the programme, including the success in meeting agreed targets, will be prepared and submitted to the EPA as part of the AER.

C2.4 Documentation

An environmental management documentation system will be established and maintained. Copies of regulatory permits (waste licence and planning) will be made available to all relevant personnel whose duties relate to any conditions of the waste licence or planning permission.

C2.5 Corrective Action

Procedures will be established to ensure that corrective action is taken should the specified requirements of the waste licence not be fulfilled. The responsibility and authority for initiating further investigation and corrective action in the event of a reported nonconformity with the waste licence will be defined.

C2.6 Awareness and Training

Procedures will be established and maintained 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 will be maintained.

C2.7 Communications Programme

A Public Awareness and Communications Programme will be established and maintained to ensure that members of the public are informed, and can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

C2.8 Maintenance Programme

A programme for maintenance of all plant and equipment (based on the instructions issued by the manufacturer/supplier or installer of the equipment) will be established and maintained. Appropriate record keeping and diagnostic testing shall support this maintenance programme.

C2.9 Efficient Process Control

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

BioAgrigas Ltd is committed to developing each of the above elements prior to commencement of waste activities at the site and improving them on an ongoing basis thereafter.

C3 Hours of Operation

The facility has been designed for continuous operation 24 hours a day throughout the year. Scheduled shut down periods will be kept to a minimum to allow the facility to operate at maximum efficiency. Waste will be accepted at the facility in fully enclosed tankers and covered trailers between the hours of 0800 -1900 hours, Monday to Friday, 0800 – 1300 hours on Saturday approximately, with no deliveries on Sundays or public holidays except in emergency situations.

The construction works at the facility will take place between the hours of 0800 -1900 hours, Monday to Friday, 0800 – 1300 hours on Saturday as per the operation phase.

C4 Conditioning Plan

Not applicable

ATTACHMENT D-INFRASTRUCTURE AND OPERATION

Attachment D1-Infrastructure

D.1.a) Security including perimeter fencing, entrance gates etc.

Site security will be provided by a combination of suitable infrastructure and personnel. It is proposed that the site entrance will have a security entrance gate. This will be a steel palisade gate 2.4m high with security locks. There will be a security fence consisting of plastic coated fencing (2.4m high) placed around the proposed facility. There will be CCTV cameras located at suitable points around the site. Some of these will be mounted on camera towers. Security cameras will be located to cover the site entrance, administration building, process areas and powerhouse. The exact number and location of the cameras will be reviewed on an ongoing basis. Intruder alarm systems will be installed on all buildings and will be monitored on a 24 hour basis. A record will be kept of all visitors to the site. Visitors will be monitored and supervised at all times. Personnel will be employed to provide security during closed hours and at weekends and bank holidays. The phone numbers of all emergency services will be clearly posted adjacent to all fixed line phones on site.

D.1.b) Design for site roads

The internal layout of the development will allow for full movement of delivery vehicles unloading, turning, parking etc and will be segregated from the staff parking at all times. All traffic projected to visit the site will be able to enter and leave the site in forward gear. The site compound area is situated a comfortable distance from the existing and future road network and as such will not pose any impact on the general public.

The designer of the scheme will provide adequate signage to provide information and warning to the customer and to ensure that they park in the designated area. All internal traffic movements will be kept a significant distance from the public road network.

All site access roads and car parks will have asphalt-wearing surfaces. Roads and car parks will generally have concrete kerbs. Site roads will be constructed as per NRA specifications for road works 2010 refer to drawing 111_001_802 in Appendix D3 for detail. Drainage to all roads will be to roadside gullies.

D.1.c) Designs for hard standing areas

All hardstanding areas will be constructed in clean well compacted hardcore laid in max 150mm layers on sound bearing. Full details of the storm water drainage are outlined on drawing 111_001_807 in Appendix D3

D.1.d) Plant (weighbridge)

All waste vehicles entering and exiting the facility will be weighed on a calibrated weighbridge. Each waste load arriving at the facility will be registered by weight, waste type and supplier. Analytical data regarding testing conducted at source prior to arrival at the facility will also be documented on arrival. The weighbridge will be manned from the administration building. The dimensions of all infrastructure associated with the administration area are presented in Drawings Nos. 111-001- 803 in Appendix A1

D.1.E) Wheel Wash

Prior to leaving the waste reception area of the facility, the rear of vehicles and the vehicle wheels will be steam washed. The facility is not connected to the local water mains and uses some of its rain collection tank as a source of water for the facility. This water is used for washing trailers, equipment and floors. Wash water will be contained and will drain back into the feedstock bunker within the building.

D.1.F) laboratory Facilities

It is not intended at this point in time to have laboratory facilities at the facility. Some testing will be done on site. In general, external accredited laboratory will be used.

D.1.G) Design and location of fuel storage areas

The fuel storage on site will be used to store mineral oil for use in the back up diesel generators and stand by boiler on site. Any fuels stored on site will be kept in appropriately bunded areas as per EPA guidelines.

Any storage tanks will be bunded and any fuel or chemicals on site will be stored as follows:

- Suitably certified tanks within areas bunded to a capacity of 110% of the tank
- Where two tanks are bunded, bund capacity will be to 120% of the largest tank.
- No pipe work will go through the bund at any point to reduce the risk of leakage
- Re-fuelling of mobile plant in designated areas provided with spill protection
- An emergency response plan
- Training for on-site personnel

D.1.h/i) Waste Quarantine areas/waste inspection areas

A waste inspection area will be provided in a clearly marked and dedicated area of the reception hall it will be of a sufficient size to facilitate a visual assessment of each load from new and existing contractors. A clearly marked and dedicated quarantine area will be provided within the waste reception hall. All waste quarantined in this area will be fully contained ready to be sent offsite for alternative treatment. A daily inventory of any materials placed in quarantine will be maintained.

D.1.j) Traffic control

It is proposed that the access into the proposed development will access the road network via the new link road between the proposed N4 Grade Separated Junction and the R156. If the proposed N4 scheme is not completed before the bio-gas plant, then an alternative access will be provided via upgrading an existing farm access on the R156.

Car parking is provided for employees, delivery personnel and visitors at the facility.

The location of the car park is detailed on Drawing No. 111_001_801 located in Appendix B2

Traffic management to the site is dealt with in more detail in Section 12, of the EIS.

D.1.K) Sewerage and surface water drainage infrastructure

All surface water runoff will be contained and treated on site prior to discharge. Refer to the Civil Engineering Specification in Appendix D1 for details.

There is no foul sewage system on the site at present. During the construction phase effluent generated on site will discharge to temporary sewage containment facilities prior to transport and treatment off site. During operation, domestic sewage from toilets, changing and kitchen areas will discharge via the foul drainage system into on site effluent treatment systems, from which it will then be discharged to percolating area. Refer to the Civil Engineering Specification in Appendix D1 for details.

D.1.L) All other services

Potable Water

At peak operation it is envisaged that 10 persons would be employed on site throughout the day. Potable water will be supplied by connection to the existing watermain to the Southwest of the proposed site. For further details on water demand refer to Civil Engineering Specification (Appendix D1) and Drawing 111_001_809 (Appendix D3)

Electricity

There is an electrical supply to the northeast corner of the site adjacent to the site boundary. From this an existing 20kVA electrical distribution line crosses the site in a north south direction. The electricity line on the proposed site will be an underground line the route of which will be determined in consultation with the ESB.

A licence to export electricity through the transmission network will be obtained from the Commission of Electricity Regulation.

Telecommunications

Telecom network including phone lines will be ducted from the site entrance parallel to the roadway to the administration building where a main switch will be provided. The telecommunications network will extend from the administration building to all areas of the site where telemetry or remote monitoring is required. All cables will be underground and ducted in 150mm diameter uPVC ducting.

D.1.M) Plant sheds Garages and Equipment Compound

None are proposed for the site

D.1.N) Site Accommodation

The administration area is located at the western margin of the proposed facility and will comprise a single storey office and staff facilities consisting of

- Offices;
- Tea Station;
- Locker room;
- Toilets; and
- Shower area.

D.1.O) Fire Control system including water supply

The plant will be provided with adequate infrastructure for fire detection and fire-fighting equipment will include:

- Smoke detectors
- Fire alarms
- 1 No. fire water tank with a capacity of 240m³
- Hydrants and hose reels
- Fire extinguishers

All fires on site are to be treated as a major hazard and a potential emergency situation, and as such must be dealt with accordingly. A fire water control tank will be located at the facility (refer to services drawing 111_001_806 Appendix D3) with a capacity of 240m³ and this will be regularly maintained so as to be available for fire fighting at all times. Should an incident such as a fire occur then the Fire Brigade, the Environment Protection Agency (EPA) and Westmeath County Council will be informed by the Operational Supervisor as soon as is practicable. Fires within buildings, and of plant and equipment, will be covered in the Safety Statement.

D.1.P) Civic amenity facilities

Not applicable

D.1.Q) Any other waste recovery infrastructure

Not applicable

D.1.R) Composting infrastructure

Not applicable

D.1.S) Construction and Demolition waste infrastructure

All construction waste will be dealt with in line with planning condition 10 iii d refer to Appendix B3 for a copy of the planning conditions

D.1.T) Incineration infrastructure

Not applicable

D.1.U) Any other Infrastructure

Not applicable

Attachment D2-Facility Operation

D.2.a) Unit operations

Refer to section 2.4 of the EIS for a full outline of unit operations.

D.2.b) Process Flow Diagram

Refer to drawing 111_001_804 Appendix A2 for a full process flow diagram.

D.2.c) Unit operations Potential emissions

Refer to Chapter 5 of the EIS for detail on process emissions. Details are also given in Attachment E of the waste licence application.

D.2.d) Unit operations laboratory operations

Not applicable

D.2.e) Unit operations Incineration

Not applicable.

D 3) Liner System

Not Applicable

D 4) Leachate Management

Not Applicable

D 5) Landfill Gas Management

Not Applicable

D 6) Capping System

Not Applicable

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Attachment E Emissions

Attachment E.1-Emissions to Atmosphere

Refer to chapter 5 of the accompanying EIS and to Appendix E1 for the standard tables containing the details of the emissions to atmosphere. Locations of discharge and monitoring points are illustrated on drawing 111-001-812 and 111_001_821 in Appendix E7. A full dispersion modelling assessment has been carried out on the proposed development and is included in Appendix E2

Attachment E.2-Emissions to Surface Waters

Refer to Chapter 7 section 7.5.2.2 and chapter 10 section 10.8.5 of the EIS and the Civil Engineering Specification located in Appendix D1 for details of emissions to surface water. Refer to Appendix E3 for standard tables containing detail on the emissions to surface water and to drawing 111-001_812 (Appendix E7) for locations of emission and monitoring points. A full surface water services layout is provided in drawing 111_001_807 in Appendix D3.

Attachment-E.3-Emissions to Sewer

There are no discharges to the Sewer

Attachment E.4-Emissions to Groundwater

Chapter 7 of the EIS describes the potential impact of the proposed activities on the Groundwater. The operational phase of the development is not expected to pose any significant risk to groundwater flow or the prevailing hydrological conditions in the locality. It is not anticipated that there will be any adverse impact on the prevailing groundwater quality as there will be no discharges from the proposed process to groundwater at this location. However, a wastewater treatment plant has been proposed and a possibility exists that contamination of the groundwater may occur as a result of the discharging of treated effluent to the ground. The design and installation of the plant has been and will be completed and supervised by an approved Site Suitability Assessor. Refer to Appendix D2 for a copy of the site suitability assessment and to Appendix E4 for standard tables detailing emissions to groundwater and to drawing 111-001_821 (Appendix E7) for locations of emission and monitoring points.

Attachment E.5-Noise Emissions

While there is a potential for noise impacts from construction and operation of the proposed development, mitigation measures proposed will ensure that the noise levels in the vicinity of the development are within the EPA stipulated guideline values of 55dB(A) and 45dB(A) for daytime and night time noise activities.

Chapter 6 of the EIS provides information on the potential noise emissions from the proposed development. Refer to drawing 111-001_812 (Appendix E7) for proposed noise monitoring locations.

Attachment E.6-Environmental Nuisances

Attachment E.6a-Bird Control

Chapter 3 section 3.5 of the EIS provides information on proposals for vermin and bird control

Attachment E.6b-Dust Control

A dust minimisation plan will be implemented prior to commencement of site works. Dust monitoring will be carried out in accordance with the ORS report and methodology submitted to Westmeath Co Council as part of a response to a further information request as part of the planning process. Please refer to Appendix B3 for the planning conditions and to Appendix E5 for a copy of the dust monitoring proposals.

In order to minimise dust creation throughout the operational phase of the facility all processes will take place within the confines of dedicated buildings, which will minimise the potential for dust emissions. The air from the waste reception hall will be discharged through a biofilter. Wheel washing and dust suppression of on-site roads by spraying with water during dry periods will also minimise dust generation through the construction and operation of the facility.

Attachment E.6c-Fire Control

Refer to Chapter 2 section 2.3.2.2 of the EIS.

Attachment E.6d-Litter Control

The following measures will be employed at the site to control litter:

Litter will be controlled at the proposed facility as all waste being delivered to the site will be in enclosed or covered collection vehicles. In addition all waste acceptance and processing activities will be conditioned within dedicated buildings e.g. waste reception hall. As a precaution regular litter patrols of the site perimeter and access road will be undertaken. All site areas will be inspected and cleaned regularly.

Attachment E.6e-Traffic Control

Refer to Chapter 12 of the EIS

Along with a Traffic and Transport chapter within the EIS, there is also a separate Traffic and Transport Assessment Report associated with the planning application. This Traffic and Transport Assessment Report examines existing and proposed traffic conditions and transport activity to determine the effects on the local road network. Refer to Appendix E6 for the traffic and transportation report.

Attachment E.6f-Vermin Control

Chapter 3 section 3.5 of the EIS provides information on proposals for vermin and bird control.

Attachment E.6g-Road Cleansing

The deposition of mud and debris in and around the site and on the roads in the vicinity of the site will be minimised by the following operational procedures.

- All materials entering the facility will be transported in covered or enclosed vehicles.
- All waste acceptance and processing will be carried out in dedicated buildings.

- following the discharge of waste into the facility building the wheels and rear of delivery vehicles will be cleaned Hence the wheels of vehicles will be less susceptible to picking up waste and contaminating site roads and surrounding roads.
- Dust suppression when required by use of road sweeper or water tanker

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Attachment F Control and Monitoring

Attachment F.1-Treatment, Abatement and Control Systems

Air

Refer to chapter5 of the EIS for Air Emissions and abatement measures

Emissions of NO² and SO² from the generators will be controlled by the operating licence emission limits. Continuous and extractive monitoring will ensure that these limits are being met. Furthermore, the use of advanced technology and process abatement (SO² scrubber) will ensure emissions are minimised.

The flare will only run during maintenance of the gas engines. This scenario will occur very seldom as the rate of feedstock introduction will be stringently and automatically controlled. The proposed flare will have the capability of a sure start and stop procedure and will be able to adjust to any biogas flow. It is anticipated that the flare will only be used for a few hours per year.

Surface and ground water

Surface water

Surface water runoff from the proposed development will be captured and directed through attenuation features and petrol/oil interceptors if required. It will then be discharged to a watercourse at a controlled rate as specified by Westmeath County Council. Refer to chapter 10 section 10.8 .5 of the EIS and the civil engineering specification in appendix D1

Groundwater

The operational phase of the development is not expected to pose any significant risk to groundwater flow or the prevailing hydrological conditions in the locality. It is not anticipated that there will be any adverse impact on the prevailing groundwater quality as there will be no discharges from the proposed process to groundwater at this location. However, a wastewater treatment plant has been proposed and a possibility exists that contamination of the groundwater may occur as a result of the discharging of treated effluent to the ground. If the rock is fissured the potential risk is higher as a direct pathway allows potential pollutants to reach the groundwater table below. As above the design and installation of the plant has been and will be completed and supervised by an approved site suitability assessor.

Attachment F.2-F9 Monitoring and sampling points

Locations of all sampling and monitoring points are outlined on drawings 111_001_812 and 111_001_821 in Appendix E7

Attachment F2 Air (dust and odour)

Refer to chapter 5 sections 5.2 and 5.4.1.6 of the EIS for details of proposed air monitoring techniques. Refer also to the dispersion modelling assessment in Appendix E2.

Parameter	Emission point AEP1 – Gas Engine 1 ¹	Emission point AEP2 – Gas Engine 2 ¹	Emission point AEP3–OCU 1 to 3 ²
X coordinate	251118	251118.9	251093.1
Y coordinate	250579.1	250580.4	250590.2
Elevation (A.O.D) (m)	96.67	96.67	96.67
Stack height (m)	15	15	15
Orientation	Vertical	Vertical	Vertical

A dust minimisation plan will be implemented prior to commencement of site works. Dust monitoring will be carried out in accordance with the ORS report and methodology submitted to Westmeath Co Council as part of a response to a further information request as part of the planning process. Please refer to Appendix B3 for the planning conditions and to appendix E5 for a copy of the dust monitoring proposals.

Attachment F3 Surface Water

Refer to chapter 7 section 7.4.2.2 of the EIS and the Civil Engineering Specification located in appendix D1 for details of emissions to surface water. Monitoring of surface water in line with EPA guidelines will commence at the designated locations (refer to appendix E7) prior to the construction phase of the development commencing and will continue throughout the operational phase of the facility.

Attachment F4 Sewer Discharge

Not Applicable

Attachment F4 Groundwater Discharge

The operational phase of the development is not expected to pose any significant risk to groundwater flow or the prevailing hydrological conditions in the locality.

However, a wastewater treatment plant has been proposed and a possibility exists that contamination of the groundwater may occur as a result of the discharging of treated effluent to the

ground. The design and installation of the plant has been and will be completed and supervised by an approved Site Suitability Assessor. Refer to appendix D2 for a copy of the site suitability assessment.

Attachment F6 Noise

Chapter 6 section 6.5.1 of the EIS outlines in detail the likely noise impacts of the development throughout the operational and construction phase. Refer to drawing No 111_001_812 Appendix E7 for noise monitoring locations

The assessment of construction noise as outlined in chapter 6 section 6.5.1.2 of the EIS indicates that the noise criterion is unlikely to be exceeded during the construction phase of the project.

Various mitigation measures will be applied during the haul road construction such as:

- Controlling the hours during which site activities are likely to create high levels of noise
- Selection of plant with low noise emissions
- Erection of barriers / berms as necessary
- noisy plan situated as far away from sensitive locations as possible

As mentioned in chapter 6 section 6.7.2 of the EIS the operational phase of the proposed development will not give rise to noise levels off site which would exceed the expressed limit of 55dB(A). The resultant noise impact from the proposed development on the local community will therefore not be significant. During the operational phase of the proposed composting facility monitoring will be carried out at sensitive locations indicated on drawing 111_001_812 appendix E7 to ensure the threshold limit of 55dB(A) is complied with. Monitoring will be carried out throughout the various stages of the development and as requested by the EPA.

Attachment F7 Meteorological Data

Meteorological monitoring is carried out concurrently with Dust Monitoring and Air Monitoring at the Dust Monitoring Points and Air Monitoring Points.

Attachment F8 Leachate

Not Applicable

Attachment F9 Landfill Gas

Not Applicable

Attachment G resource use and energy efficiency

Attachment G.1- Raw Materials, Substances, Preparations and Energy

The purpose of the facility is to convert biodegradable waste into energy through anaerobic digestion. The main raw material for the process is the biodegradable waste. To meet Animal By-Products Regulations requirements certain disinfectants will be required at the site. The chemicals used will be selected from the Department of Agriculture and Food approved list for facilities falling under the Animal By-Products Regulations. Diesel, lubricating oil and hydraulic oil will be used in the waste processing equipment. The exact quantities to be used are unknown but will be continuously monitored from commencement of operation to improve efficiencies.

For inspection purposes only.
Consent of copyright owner required for any other use.

Table G.1 Details of Process related Raw Materials, Intermediates, and Products, etc., used or generated on the site

Ref. N ^o or Code	Material/ Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R ⁽³⁾ - Phrase	S ⁽³⁾ - Phrase
M1	Cattle slurry				2000	Anaerobic Digestion		
M2	Pig slurry				3000	Anaerobic Digestion		
M3	Maize silage			10 000	2000	Anaerobic Digestion		
M4	Grass Silage			10 000	3000	Anaerobic Digestion		
M5	Fodder Beet			7 500	2000	Anaerobic Digestion		
M6	Category 2 ABP belly grass				5000	Anaerobic Digestion		
M7	Bakery Waste				3000	Anaerobic Digestion		

- Notes:
1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
 2. c.f. Article 2(2) of SI N^o 77/94
 3. c.f. Schedules 2 and 3 of SI N^o 77/94

For inspection purposes only. Consent of copyright owner required for any other use.

Attachment G.2- Energy Efficiency

The anaerobic digestion will generate energy (electricity and heat). It is expected that 1.0MWe will be generated and the exact quantity will depend on the waste types being processed. Energy (electricity and heat) generated from the process will be used in the process. An energy audit will be conducted annually to ensure energy is being used efficiently.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Attachment H Materials Handling

Attachment H.1 Waste Types and Quantities- Existing & Proposed

As the facility is proposed there are currently no existing waste types processed on site. It is proposed to accept up to 20,000 tonnes per annum of non hazardous organic feedstock at the facility. These feed stock quantities are outlined in table H.1

Table H. 1

Type of feedstock	Annual tonnes/year	Storage capacity provided/Tonnes	Classification from EWC Catalogue
Pig slurry	3000	Not stored	02 01 06
Dairy Cow Slurry	2000	Not stored	02 01 06
Maize Silage	2000	10 000	Not classified
Grass Silage	3000	10 000	Not classified
Fodder Beet	2000	7 500	Not classified
Category 2 ABP – Belly Grass	5000	Not stored	02 01 02
Bakery Waste – Bread, Dough Fat	3000	Not stored	02 06 01

Attachment H.2 Waste Acceptance Procedures

Refer to sections 2.3.1.2 and 2.4.4.1 of the EIS for details of waste acceptance procedures at the facility. Waste will only be accepted at the facility under contract by pre approved suppliers. Below is a draft of the proposed waste acceptance procedure which will be adopted as part of the standard operating procedures for the plant.

H.2.1 Draft waste acceptance procedure

1. Purpose

The purpose of this procedure is to outline the acceptance procedure for waste entering the BioAgrigas Anaerobic Digestion facility at Newdown the Downs Co Westmeath.

2. Responsibilities

It is the responsibility of the Plant Manager and Operations Team to ensure this procedure is adhered to.

3. Procedure

Waste will only be accepted from holders of waste permits who have been screened in line with operational procedures for screening of suppliers to the AD plant.

4. Waste Scheduling

The planning department will be responsible for scheduling the acceptance of waste materials at the facility.

Waste Licence application	Attachment H Materials Handling
---------------------------------	---------------------------------

Acceptance of Waste at the BioAgrigas Anaerobic Digestion facility will only be from pre approved contracted suppliers and will consist of non hazardous organic feedstock.

BioAgrigas Ltd will have contracts in place with the suppliers of these non hazardous waste materials. These contracts will detail the overall annual intake quantities and the schedule for the arrival of the material on site over the year. These waste materials will be supplied regularly (daily) and will comprise of a fixed batch. A fixed batch is created by the planner for a certain number of loads and is linked to an expiry date. A fixed batch is clearly identified by an accompanying waste certificate. These loads are not planned for a precise intake date but the fixed batch of loads must arrive on site prior to the associated expiry date. The scheduling of the individual loads is agreed with the planner on a day to day basis.

5. Waste Acceptance:

Reporting at the gate

Waste will only be accepted in enclosed trucks. Unscheduled or un- contracted vehicles will not be allowed enter the facility.

Trucks with a fixed batch card (standard contract waste) report to the weighbridge operator and then proceed immediately to be weighed.

The weighbridge operator will enter the following information onto the tracking system for all waste material entering the facility:

- Name _ of Haulier/Carrier
- Name of Producer/Collector of Waste
- Registration number of truck
- Batch number.
- EWC Code and Description of Waste
- Date
- Name of Weighbridge Operator
- Details of rejected load (if applicable)

Weighing

The driver positions the truck on the weighbridge and the gross weight is recorded on the batch card. This information is automatically sent to the tracking system. After weighing the truck proceeds to the waste reception building in the case of a delivery of bakery waste or category 2 ABP. Silage and fodder beet deliveries will be directed to the appropriate storage pit.

Arrival and unloading of trucks

At the waste reception building the operator in charge will inspect the load in line with defined procedures and directs the loads to a suitable reception bin. Loads not meeting pre defined criteria will be directed to the quarantine area.

The waste reception building will utilise an air curtain, or similar, immediately inside the door, any malodorous air will be directed to a biofilter via an extraction fan.

Waste Quarantine:

All non conforming material will be held in the quarantine area within the reception hall until a further course of action has been agreed.

The following courses of action may be taken:

1. The load may be processed without major additional cost In such a case the load may be accepted.

2. The load may be processed, but the additional cost is likely to be major

In this case the process supervisor (or shift operator) gets in touch with the planner so that the latter can discuss this with the customer and reach an agreement (refusal and return of load / acceptance of load subject to additional cost etc.).

3. The load cannot be processed or is not acceptable (e.g. hazardous waste). In such circumstances the load is refused and the process supervisor (or shift operator) notifies the planner and the manager or his deputy.

All loads that are refused will be recorded. Reasons for refusal, quantities and other comments will be noted. A list of all the non conforming material is presented and discussed during the regular meetings of the planning department with the operations department.

These anomalies are also recorded in the minutes of this meeting.

Tare weighing

After unloading the truck will proceed once more to the weighbridge and a tare weight is recorded. The weight of discharged material is the gross weight minus the tare weight. A weigh ticket is automatically printed out for the driver.

If the truck has a fixed batch (contract waste):

- The information is automatically sent to the tracking system.
- The truck leaves the facility and the driver retains the weigh docket and batch (card).

If the truck has a temporary batch:

- The information is automatically sent to the tracking system.
- The driver hands in his batch (card).
- He receives the signed-off delivery docket

The weighbridge operator keeps the weigh docket and a copy of the delivery docket.

Attachment H.3 Waste Handling Procedures

Draft waste handling procedure

1. Purpose

The purpose of this procedure is to outline the waste handling procedure for waste entering the Bio Agrigas Anaerobic Digestion facility at Newdown The Downs Co Westmeath.

2. Responsibilities

It is the responsibility of the Plant Manager and Operations Team to ensure this procedure is adhered to.

3. Procedure

On arrival in the waste reception building and once an inspection has been carried out and the material deemed fit for purpose the waste is tipped into the reception bins. From the reception bins the waste is auger fed to the mixing tanks. From this point in the process the material is enclosed in a pipe network and is pumped throughout the plant.

The silage and beet is tipped in the designated areas in front of the storage pits and is ensiled within the pits by way of a loading shovel. At the point of removal from the storage pits the organic material is removed with a loading shovel and tipped into the hoppers from where it is auger fed into the digesters.

Digestate material is pumped from the post digestion storage tanks to enclosed tankers for removal from site.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Attachment I Existing environment and impact of the activity

I.1. Assessment of atmospheric emissions

Please refer to chapter 5 of the EIS

I.2. Assessment of Impact on Receiving Surface Water

All surface water runoff will be contained and treated on site prior to discharge. Refer to the Civil Engineering Specification in Appendix D1 and to drawing 111_001_807 Appendix D3

Surface water runoff from the proposed development will be captured and directed through attenuation features and petrol/oil interceptors as required. It will then be discharged to a watercourse at a controlled rate as specified by Westmeath County Council. Please refer to Chapter 10.0 of the EIS on Material Assets.

The operational phase of the development is not expected to pose any significant risk to groundwater flow or the prevailing hydrological conditions in the locality. It is not anticipated that there will be any adverse impact on the prevailing groundwater quality as there will be no discharges from the proposed process to groundwater at this location.

I.3. Assessment of Impact of Sewage Discharge.

Not applicable there is no discharge to sewer

I.4. Assessment of impact of ground/groundwater emissions

It is not anticipated that there will be any adverse impact on the prevailing groundwater quality as there will be no discharges from the proposed process to groundwater at this location. Chapter 7 Section 7.2.2 of the EIS provides an assessment of the environmental impacts of the proposed development on the bedrock geology, drift geology and hydrogeology. Consideration is given to the nature of the underlying limestone bedrock and the implications this may have on the subterranean drainage and groundwater quality.

I.5. Ground and/or groundwater contamination

Not applicable the site is a Greenfield site currently used for agriculture and there is no known ground or groundwater contamination on the site.

I.6. Noise Impact

Chapter 6 of the EIS outlines in detail the potential noise impacts associated with the construction and operation phases of development on noise sensitive locations surrounding the site. Please also refer to Table I.6 (i) Appendix I1 in relation to ambient noise measurements. Noise monitoring locations are indicated on drawing 111_001_812 Appendix E7

I.7 Assessment of Ecological Impacts & Mitigation Measures

Please refer to chapter 9 of the EIS

Attachment J Accident Prevention and Emergency Response

Attachment J.1 Accident Prevention

J.1a Facility Design

It is the policy of Bio Agrigas Ltd to attach the greatest importance to the health and safety of all persons employed on and indirectly affected by site activities.

The proposed facility has been designed in accordance with the Safety Health and Welfare at Work Act, 2005, the Safety, Health and Welfare at Work (Construction) Regulations, 2001 and associated regulations. This design was carried out by skilled personnel according to internationally recognised standards, design codes, legislation, good practice and experience.

The following principles are incorporated into the overall design of the facility to minimise the risk of accidents or emergency situations:

- The design complies with Irish Building Regulations Part B Fire Safety and with BioAgrigas insurance company's requirements
- The installation will be validated as part of commissioning procedures and will be inspected by safety officers prior to start up
- The Anaerobic Digestion process will be controlled manually and automatically by employees and a computerised control system in the control room
- A comprehensive interlock system will automatically shut down the plant in a safe manner in the event of equipment failure or dangerous situations arising.
- Fire detection and fighting systems will be installed (refer to chapter 2 section 2.3.2.2 of the EIS)
- Backup systems for pumps, control systems, power supply and instruments will be provided for critical situations. In the unlikely event of a failure of the plant, and a simultaneous failure of the supply from the electrical distribution system, a backup generator will supply electricity to the critical systems.
- The storage of all waste, consumables and residues will be designed to prevent fugitive emissions to air, surface water or ground. The drainage systems will be designed to divert and contain any possible contamination.

J.1b Facility Operation

In compliance with the Safety, Health and Welfare at Work Act, 2005, BioAgrigas Ltd will draw up a safety statement covering the operation of the plant and appoint safety representatives from the plant workforce.

During the design phase of the plant, hazard and operability (HAZOP) studies will be carried out. These will systematically assess hazards that could arise during both steady and non-steady state operations and will identify mitigation measures.

Based on the HAZOP studies, a comprehensive set of standard operating procedures will be drawn up for the operation of the plant, which will minimise the risk of accident or emergency situations arising. These and other measures will be managed by the company's QESH (Quality Environment Health & Safety) team, which has specific responsibility for quality, environment, safety and health at the facility.

Specific QESH team activities that will contribute to accident prevention include:

- Maintaining a register of environmental aspects and health and safety risk assessments
- Constantly seeking to improve on those aspects posing an environmental, health or safety risk
- Maintaining and updating operational procedures outlining the important environmental, health and safety issues in each area of operation. These procedures specify safe working methods for all process activities including good housekeeping practices.
- Coordinating external and internal audits and incident investigation
- Ensuring information on incident reports, non-conformances, observations or suggestions from employees are fed back into QESH procedures for the continual improvement of systems and operations.

Wherever possible, Bio Agrigas will strive to minimise human interaction in safety critical operations in order to eliminate the potential for "human factors" to initiate or exacerbate major accidents at the site. Through recruitment, training, performance management, employee development and succession planning, Bio Agrigas aims to ensure that all members of staff are in possession of the knowledge, skills and experience necessary to perform their jobs to a satisfactory standard. This will include adhering to strict rules on safety such as a working permit system, training and provision and use of personal protection equipment.

The facility will be well maintained and cleaned at all times. A preventative maintenance system will also be put in place, which will incorporate routine checks and maintenance of key equipment to ensure they remain in good working order.

J.2 Emergency Response

A Site Emergency Plan will be prepared before the plant is commissioned. This will set out the response measures to be taken by personnel in the event of an emergency. Measures will be designed to ensure maximum protection for site employees, visitors and people in other premises near the site to limit damage to property and minimise the impact of site operations on the environment.

The Site Emergency Plan will have four basic components as outlined below.

J.2a Prevention

Prevention involves identifying potential hazards and taking measures to remove the hazard or reduce the potential for the hazard and its adverse effects. These are typically identified through

hazard and operability studies, which feed into the register of environmental aspects and the health and safety risk assessments maintained by the QESH team. They are also identified through internal audits and incident investigations conducted by the QESH team.

Pollution prevention measures incorporated into the design of the facility have been outlined in Sections 4.5, 5.4.1.6, 6.7, 7.5 of the EIS

J.2b Preparedness

Emergency planning, training programmes, emergency drill and exercise programmes are integral components of an effective preparedness programme. Evacuation routes will be defined and all personnel will be aware of them.

The site will have a dedicated “emergency response team”, which will be trained and equipped to respond to an emergency onsite. This team will be onsite during normal working hours and will be on call at all times outside these hours. At night and on weekends the facility shift operators will be responsible for initiating the first response to an incident anywhere in the facility. In the event of a fire or smoke alarm, the shift operators will contact the emergency services immediately and then make contact with the emergency response team on call.

J.2c Response

Response activities address the immediate and short term effects of an emergency. The anaerobic digestion plant will be manned 24 hours per day including during shutdown periods where there will be maintenance and security personnel present. Emergency contact numbers for staff with responsibility for the site will form part of the Site Emergency Plan.

Responses to abnormal operating conditions will be designed by the plant commissioning personnel and will be implemented on site by the “emergency response team”, and controlled by the QESH team.

An emergency shutdown will be triggered by situations such as an electric power failure, plant interlock triggers or a manual alarm. In such cases the facility’s emergency shutdown procedure will be implemented by the shift supervisor.

J.2d Recovery

Recovery activities and programmes involve restoration of site services and systems to normal status. The plant commissioning personnel will develop this procedure during the commissioning phase of the plant. The procedure will be documented and controlled by the QESH team and implemented on site by the appointed person.

J.3 Public Liability Insurance

Public liability insurance including cover for Environmental Impairment will be purchased by Bio Agrigas Ltd.

Attachment K Remediation, Decommissioning, Restoration & Aftercare

Attachment K.1 Cessation of Activity

The total lifespan of the plant is currently anticipated to be 20 years. This may be extended through preventative maintenance and replacement of equipment. Therefore, detailed financial, administrative and technical provisions are not given here in the form of a decommissioning plan for the site.

Should circumstances arise whereby it becomes necessary to shut down the facility, BioAgrigas Ltd will provide the EPA with a detailed decommissioning plan for its approval before any works begin. Financial provision will be made to secure final restoration measures if required.

In the event of decommissioning, measures will be taken by Bio Agrigas Ltd to avoid any pollution risk and return the site of operation to a satisfactory state. Further to these measures, the site and buildings will be left in a secure manner and appropriate security will be maintained onsite in the event that the site is left vacant for an extended period of time.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Attachment L Statutory Requirements

Attachment L.1 Compliance with the Waste Management Act 1996 to 2003

L.1.1: Section 40(4) of the WMA 1996 to 2003

Under the Waste Management Act 1996 to 2003, the Agency cannot grant a waste licence unless it is satisfied that:

- (a) any emissions from the recovery or disposal activity in question (“the activity concerned”) will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment,
- (b) The activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,
- (c) The best available technology will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the activity concerned,

“(cc) the activity concerned is consistent with the objectives of the relevant waste management plan or the hazardous waste management plan, as the case may be, and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan,”
- (d) if the applicant is not a local authority, the corporation of a borough that is not a county borough, or the council of an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence,
- (e) The applicant has complied with any requirements under section 53.
- (f) Energy will be used efficiently in the carrying on of the activity concerned,
- (g) any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 1992,
- (h) Necessary measures will be taken to prevent accidents in the carrying on of the activity concerned and, where an accident occurs, to limit its consequences for the environment,
- (i) necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state.’

Specific measures taken to comply with these requirements are outlined in this Attachment.

L.1.2: Impact of facility on environment and health

Section 40(4) parts (a) and (b) of the Waste Management Act 1996 to 2003 require that emissions do not contravene any relevant standard, and that the activity does not cause any environmental pollution.

As outlined in Attachments E, F and I, emissions from the anaerobic digestion facility will not cause environmental pollution and will comply with all of the relevant standards including:

L.1.2.a General Operations Standards

Waste acceptance and handling procedures (Attachment H) will minimise any negative impacts on the environment from waste deliveries.

The facility will be designed to stringent performance and health and safety standards to avoid accidental emissions as outlined in Attachment J.

Equipment and structures will be designed in line with relevant codes and standards and in accordance with current best practice. Bunding and bunker structures will be designed in accordance with the BS8007 Standard for the Design of Aqueous Liquid Retaining Concrete Structures.

Monitoring equipment will meet TÜV standards for equipment certification.

As outlined in Attachment L.1.3, the plant will be designed according to the principles of BAT.

L.1.2.b Air emissions and ambient quality standards

The anaerobic digestion process and gas treatment system have been designed to ensure that any emissions leaving the facility are well below the limits set out in EU Directive 2008/50/EC on ambient air quality and cleaner air for Europe.

Air dispersion modelling (see chapter 5 of the EIS) found that the cumulative impacts on air quality from the facility will be well within the Ambient Air Quality Standards set out in EU Directive 2008/50/EC, even where the plant is operating at maximum or abnormal operating conditions.

Refer to Appendix E2 for a full dispersion Modelling Assessment.

L.1.2.c Effluent emission standards

The facility has been designed to prevent the unauthorised or accidental release of polluting substances to soil or groundwater in line with the EU Groundwater Directive 2006/118/EC.

The process has been specifically designed to be free of process effluent. Hence there will be no discharge of process effluent from the facility.

The only emission from the facility to ground will be treated sanitary effluent from staff and visitor facilities. The treatment system will be designed in line with EPA Guidelines on Wastewater Treatment Systems for Small Communities, Businesses, Leisure Centres and Hotels.

The only emission to surface water will be clean surface water runoff from roofs and hardstanding areas which will be in line with S.I. No. 272/2009 — European Communities Environmental Objectives (Surface Waters) Regulations 2009.

L.1.2.e Noise standards

Noise emissions from the facility will not exceed the standards of 55 dB(A) Laeq, (daytime) and 45 dB(A) Laeq, (night time) at the nearest noise sensitive locations as recommended in the EPA Guidelines on Noise. There will be no tonal or impulsive noise emissions from the facility (see Chapter 6 of the EIS).

L.1.2.f Standards regarding the protection of habitats

The facility will not have any adverse impact on sites protected under the EU Habitats Directive 92/43/EEC or other areas within or near the site covered by a scientific or conservation designation as recognised by the National Parks and Wildlife Service (see chapter 9 of the EIS).

L.1.3: Application of Best Available Techniques

Section 40(4) part (c) of the Waste Management Act 1996 to 2003 requires that the facility be designed and operated in accordance with Best Available Techniques (BAT) to prevent and reduce emissions or other adverse environmental impacts as far as practicable.

Best Available Techniques (BAT) will be used to prevent or eliminate or, where that is not practicable to limit, abate or reduce an emission from all site activities.

L.1.4: Compliance with Waste Management Plan

The proposed development is in line with requirements of the Waste Management Plan 2005-2010 for the midlands region.

L.1.5: Fit and Proper Person

Section 40(4) part (d) of the Waste Management Act 1996 to 2003 requires that the applicant is a fit and proper person. Please see Attachment L.2 for more details.

L.1.6: Compliance with Section 53

Section 40(4) part (e) of the Waste Management Act 1996 to 2003 requires that the applicant comply with any requirements under section 53, which includes providing to the Agency information on the applicant's ability to meet financial commitments or liabilities. Please refer to Attachment L.2 for details.

L.1.7: Energy efficiency

Section 40(4) part (d) of the Waste Management Act 1996 to 2003 requires that the energy be used efficiently in the carrying on of the activity concerned. Please refer to Attachment G for details.

L.1.8: Noise Emissions

Section 40(4) part (d) of the Waste Management Act 1996 to 2003 requires that any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 1992.

As highlighted in Attachments chapter 6 of the EIS noise emissions from the facility will not exceed the limits given in the EPA Guidelines on Noise. The limits set out in these Guidelines reflect EPA policy, developments in legislation, licensing requirements and BAT.

L.1.9: Accident Prevention

Section 40(4) part (h) of the Waste Management Act 1996 to 2003 requires that necessary measures be taken to prevent accidents in the carrying on of the activity concerned and, where an accident occurs, to limit its consequences for the environment. Please refer to Attachment J for more information on measures taken to prevent accidents and respond to emergencies at the facility.

L.1.10: Cessation of Activity

Section 40(4) part (h) of the Waste Management Act 1996 to 2003 requires that necessary measures be taken upon the permanent cessation of the activity concerned to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state.

Please refer to Attachment K for more information on measures proposed to avoid pollution risk and return the site to a satisfactory state, should it become necessary to shut down the facility.

Attachment L.2: Fit and proper person

The Waste Management Act 1996 to 2003 in Section 40(4) (d) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant (if the applicant is not a local authority) is a fit and proper person. Section 40(7) of the Act specifies the information required to enable a determination to be made by the Agency, which includes: an indication of whether the applicant or other relevant person has been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

Specific measures taken to comply with these requirements are outlined below.

L.2.1 Convictions under the Waste Management Acts

BioAgrigas Ltd has never been convicted of any offence under the Waste Management Act 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1997 and 1990 or the Air Pollution Act 1987 or any other environmental legislation. None of the directors or principles involved in this application has ever been convicted under the Act.

L.2.2 Technical Knowledge and/or Qualifications

Please refer to Attachment C for a comprehensive outline of existing and proposed staff for operating the facility.

L.2.3 Financial provision

Since BioAgrigas Ltd was only established in March 2011 it has no financial history. Financial provisions will be put in place to address risk liabilities at the facility. The cost of managing, developing, operating, and monitoring the facility will be borne by the applicant.

L.2.3.b Environmental Liabilities Risk Assessment

It is proposed to carry out an environmental liabilities risk assessment prior to operation of the facility, in order to identify any possible need for further financial provision. This will be submitted to the EPA when available.

L.2.3.c Liability Insurance

BioAgrigas will purchase all insurance policies required under statutory requirements including Public and Product Liability and Pollution Legal Liability.

L.2.3.d Contingency

Should circumstances arise whereby it becomes necessary to shut down the facility, Bio Agrigas Ltd Ireland will carry out decommissioning and restoration works as outlined in Attachment K