

DRAFT PERMIT

**Pollution Prevention and Control Act 1999
Environmental Permitting (England and Wales) Regulations 2016**

Permit Reference: TBC
As varied by:

Name and address of operator: R.A Latta Farms Ltd
Bridge Farm
Holme Fen Drove
Colne
Huntingdon
PE28 3RE

Address of permitted activity: As above

Huntingdonshire District Council (the regulator) hereby permits R.A Latta Farms Ltd to operate a **SMALL WASTE INCINERATION PLANT AS DEFINED IN SCHEDULE 13 OF THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016**, as described below.

Description of Activity

The site location can be seen on Location plan A at the end of the document.

The activity involves the burning of waste wood undertaken within the area marked in red on Plant room location plan B. The Biomass Combined Heat and Power plant has a thermal output of 1.65MW, with an electrical output of 175kW and will provide heat and power to the existing farm. The majority of the electricity will be used on site for running cold stores, machinery and irrigation pumps, excess energy will be exported as the site has export approval for 200kW that will be shared with the existing solar PV systems.

The heat produced by the CHP will be used for drying agricultural derived materials within the existing drying sheds all year round, along with replacing existing oil and LPG heating to the workshops, stores and offices. The plant will be operating continuously with shutdowns only expected for routine maintenance each month, each of which will last for no more than 24 hours.

The plant is a Herz solid fuel industrial warm water boiler, model number RRK 1650 WID with a moving grate and an output of 1650kW and a stack height of 10 metres. Fuel, in the form of Class A, B or C shredded wood, as classified in the Environment Agency Document 'Briefing on Regulation of Wood', will be brought onto the site in covered lorries and tipped into the enclosed storage bays as indicated on the plant room layout plan C.

Fuel will be delivered by HGV's using walking floor trailers into a concrete storage bunker. The walking floor within the bunker will then pull the fuel onto an enclosed auger transfer system, transferring it to the boiler.

Combustion will be controlled electronically. A flow gas recirculation system will be used as well as a Urea-based Selective Non-Catalytic Reduction (SNCR) process to reduce NO_x and ensure emission limits are met. Continuous monitoring equipment will be utilised and if limits are exceeded the plant will automatically shut down the boiler safely.

The ash will be augured from the boiler into an enclosed skip awaiting removal by licensed waste contractors.

* **Grade A** – visibly 'clean' recycled waste wood mainly from packaging waste, scrap pallets, packing cases and cable drums, and process off-cuts from the manufacture of untreated products. It is our understanding that 'single use' packaging and pallet manufactured within the UK are unlikely to have been subject to any form of treatment.

To ensure only grade A is used for such purposes best practice dictates that rigorous segregation takes place and as near to the site of production as possible. Reputable wood recyclers have such quality procedures in place.

Grade B – may contain Grade A wood together with other waste wood sourced from construction and demolition activities, transfer stations, civic amenity sites and the manufacture of furniture from solid wood. Grade B waste wood should be regarded as treated waste wood and can mainly be used in panel board manufacture.

Grade C – may contain the above grades of waste wood and from similar sources, but will predominantly consist of panel products such as panel board, MDF, plywood, including products bonded using heat treatment.

Grade C waste wood is treated waste wood and should be used as biomass fuel at Waste Incineration Directive (WID) compliant facilities and is not therefore suitable for U4 – Burning as fuel in a small appliance.

Schedules and Articles applied in this Permit can be viewed in Appendix A.

THIS PERMIT IS SUBJECT TO COMPLIANCE WITH THE FOLLOWING CONDITIONS:

1. PERMITTED ACTIVITIES

1.1 The operator is authorised to carry out the following activities:

| Table 1.1 Permitted activities | | |
|--|--|--|
| Regulated activity | Description | Limit |
| Schedule 13 Small Waste Incineration Plant | A waste incineration plant or waste co-incineration plant activity with a capacity of up to 3 tonnes per hour for non-hazardous waste. | Receipt, storage and processing of category A, B and C wood. |
| Directly Associated Activity | Combustion of Category A, B and C shredded timber to produce electricity and heat. | Use of heat and electricity on the existing farm and export of excess electricity to the grid. |

- 1.2 The authorised activity shall only take place within the site boundary identified in Location Plan B.

Permitted waste types

- 1.3 The operator shall only use the following permitted types of waste:

| Table 1.2 Permitted waste types | | | |
|--|--------------------|--------------------------|-------------------------------|
| Waste Code | Description | Detail | Permitted annual usage |
| 17 02 01 | Combustible waste | Category A, B and C wood | 3,500 tonnes |

- 1.4 The operator shall not co-incinerate any hazardous waste in the Small Waste Incineration Plant
- 1.5 The maximum input of waste that may be co-incinerated in the Small Waste Incineration Plant is 3,500 tonnes per annum, at a rate not exceeding three tonnes per hour.

Delivery and reception of waste

- 1.6 The operator shall ensure the delivery and reception of waste is carried out using covered transport directly into the bunker within the storage building in order to prevent or to limit as far as practicable the pollution of air, soil, surface water and groundwater. The auger systems from the storage bunker to the incinerator shall be enclosed.
- 1.7 The Operator shall take all necessary precautions concerning the delivery and reception of waste to ensure that negative effects on the environment, odours and noise and direct risks to human health, shall be prevented or limited as far as practicable.
- 1.8 The operator shall determine the mass of each type of waste, according to the European Waste List established by Decision 200/532/EC, prior to accepting the waste on site.
- 1.9 No hazardous waste shall be accepted onto site.

2. EMISSIONS TO WATER

- 2.1 There shall be no discharges to controlled waters from the operation of the small waste incineration plant.
- 2.2 There shall be no discharges to sewer from the operation of the small waste incineration plant.
- 2.3 External areas of the installation shall be impervious and surface water from these areas shall be discharged to surface water drainage on site via a silt trap and hydrocarbon interceptor. Where contaminated water remains in the drainage

system, it shall be retained by the closure of a manually operated closure valve and pumped to tankers for removal from the site

3. NORMAL OPERATING CONDITIONS

- 3.1 The operator shall not operate the small waste incineration plant unless all operating systems described in the Permit Application are functioning correctly.
- 3.2 The operator shall monitor the operation of the plant using the systems and equipment set out in the Application.
- 3.3 Waste gases from the small waste incineration plant shall be discharged from the stack serving the Herz Burner which terminates 10 metres above ground level.
- 3.4 The small waste incineration plant shall have an automatic system in place to prevent waste feed in the case of abnormal operation set out in condition 3.8.
- 3.5 The small waste incineration plant shall be operated and controlled by a natural person who is competent to manage the plant. All operational staff at the plant shall receive all necessary training prior to commencing work at the plant. Records of the training shall be kept on site for the duration of employment of the member of staff plus one year.
- 3.6 The small waste incineration plant shall be operated in such a way that the total organic content of bottom ashes is less than 3%, or their loss on ignition is less than 5% of the dry weight of the material. If necessary, waste pre-treatment techniques shall be used.
- 3.7 Any heat generated shall be recovered as far as practicable.

Abnormal operations

- 3.8 Waste shall not be charged, or shall cease to be charged, if:
 - a) The temperature indicated by the temperature probe in the combustion chamber is below, or falls below, 850°C; or
 - b) Any continuous monitoring indicates an exceedance of an emission limit value in Table 4.2, other than under permissible periods of abnormal operations; or
 - c) Monitoring results required to demonstrate compliance with any continuous emission limit value in Table 4.2 are unavailable, other than during permissible periods of abnormal operation.
- 3.9 The operator shall record the beginning and the end of each permissible period of operation.
- 3.10 In the event of any permissible period of abnormal operation the operator shall restore normal operation of the failed equipment or replace the failed equipment at the earliest possible opportunity.

3.11 Where, during permissible periods of abnormal operation, any of the following situations arise, waste shall cease to be charged until normal operation can be restored:

- a) Continuous measurement shows that an emission exceeds any emission limit value in Table 4.2 due to disturbances or failures of the abatement systems, or continuous emission monitors are out of service, as the case may be, for a total of 4 hours of uninterrupted duration;
- b) The cumulative duration of permissible periods of abnormal operation over 1 calendar year has reached 60 hours.

Note: interpretation

'Permissible periods of abnormal operation' means any technically unavoidable stoppages, disturbances, or failures of the abatement plant or the measurement devices other than continuous emission monitors for releases to air of particulates, TOC and/or CO, during which the concentration in the discharges into air of the regulated substances may exceed the normal emission limit values.

During a 'permissible period of abnormal operation' the total dust concentration emission shall under no circumstances exceed 150mg/Nm³ expressed as a half hourly average. The air emission limit values for TOC and CO set out in table 4.2 and condition 4.3(a) shall not be exceeded.

The end of the permissible period of abnormal operation means the earliest of the following:

- a) When the failed equipment is repaired and brought back into normal operation;*
- b) When the operator initiates a shutdown of the waste combustion activity, as described in the Application, or as agreed in writing with the Regulator;*
- c) When a period of four hours has elapsed from the start of the permissible period of abnormal operation;*
- d) When, in any calendar year, an aggregate of 60 hours has been reached for permissible periods of abnormal operation.*

4. EMISSIONS TO AIR

4.1 All emission limits shall be taken to be calculated at a temperature of 273.15K, pressure of 101.3kPa, 11% oxygen and after correcting for the water content of the waste gases.

4.2 The emission limit values in Tables 4.1, 4.2, 4.3, and 4.4 shall apply to emissions exiting the small waste incineration plant through the stack serving the Herz boiler.

4.3 The emission limit values (mg/Nm³) for Carbon monoxide (CO) in the waste gases shall be as set out in Table 4.1 and:

- a) 100 as a half-hourly average value;
- b) 150 as a 10 minute average value

Table 4.1: Daily average emission limit values (mg/Nm³)

| | |
|---|-----|
| Carbon monoxide | 50 |
| Total dust | 10 |
| Gaseous and vaporous organic substances expressed as total organic carbon (TOC) | 10 |
| Hydrogen chloride (HCl) | 10 |
| Hydrogen fluoride (HF) | 1 |
| Sulphur dioxide (SO ₂) | 50 |
| Nitrogen monoxide (NO) and nitrogen dioxide (NO ₂) expressed as NO ₂ | 200 |

Table 4.2: Half-hourly average emission limit values (mg/Nm³)

| | 100 th percentile | 97 th percentile |
|---|------------------------------|-----------------------------|
| Total dust | 30 | 10 |
| Gaseous and vaporous organic substances expressed as total organic carbon (TOC) | 20 | 10 |
| Hydrogen chloride (HCl) | 60 | 10 |
| Hydrogen fluoride (HF) | 4 | 2 |
| Sulphur dioxide (SO ₂) | 200 | 50 |
| Nitrogen monoxide (NO) and nitrogen dioxide (NO ₂) expressed as NO ₂ | 400 | 200 |

Table 4.3: Average emission limit values (mg/Nm³) for heavy metals over a sampling period of a minimum of 30 minutes and a maximum of 8 hours

| | |
|--|------------|
| Cadmium and its compounds, expressed as cadmium (Cd) | Total 0.05 |
| Thallium and its compounds, expressed as thallium (Tl) | |
| Mercury and its compounds, expressed as mercury (Hg) | 0.05 |
| Antimony and its compounds, expressed as antimony (Sb) | Total 0.5 |
| Arsenic and its compounds, expressed as arsenic (As) | |
| Lead and its compounds, expressed as lead (Pb) | |
| Chromium and its compounds, expressed as chromium (Cr) | |
| Cobalt and its compounds, expressed as cobalt (Co) | |
| Copper and its compounds, expressed as copper (Cu) | |
| Manganese and its compounds, expressed as manganese (Mn) | |
| Nickel and its compounds, expressed as nickel (Ni) | |
| Vanadium and its compounds, expressed as vanadium (V) | |

Table 4.4: Average emission limit value (ng/Nm³) for dioxins and furans over a sampling period of a minimum of 6 hours and a maximum of 8 hours

| | |
|--------------------|-----|
| Dioxins and furans | 0.1 |
|--------------------|-----|

5. MONITORING OF EMISSIONS TO AIR

- 5.1 Measurements for the determination of concentrations of polluting substances in waste gases shall be carried out in such a way that the samples are representative of the emission.
- 5.2 Sampling and analysis of polluting substances shall be carried out according to CEN standards or, where CEN standards are not available, to ISO or other national or international standards ensuring the provision of data of an equivalent scientific quality. Prior written approval shall be sought from the Council if sampling methods other than CEN standard methods are proposed.
- 5.3 The automated measuring systems shall be calibrated or, where appropriate, referenced, against CEN standard methods at least once a year.
- 5.4 For the daily emission limit values, the 95% confidence intervals of individual results shall not exceed the following percentages of the emission limit values.

Table 3.5: Percentages of emission limit values for condition 5.4

| | |
|-------------------------|-----|
| Carbon monoxide | 10% |
| Sulphur dioxide | 20% |
| Nitrogen dioxide | 20% |
| Total dust | 30% |
| Total organic carbon | 30% |
| Hydrogen chloride (HCl) | 40% |
| Hydrogen fluoride (HF) | 40% |

- 5.5 Continuous monitoring for the following substances shall be carried out from the small waste incineration plant: NO_x, CO, TOC and total dust.
- 5.6 Continuous measurements of the following process parameters shall be made:
- a) Temperature in the combustion chamber;
 - b) Oxygen concentration, pressure, temperature and water vapour content of the waste gas from the combustion chamber
- 5.7 One measurement at least every 3 months shall be made of HCl, HF, SO₂, heavy metals and dioxins and furans during the first 12 months of operation of the small waste incineration plant. Thereafter, at least two measurements per year of these pollutants shall be made using methods set out in accordance with Condition 5.2.
- 5.8 The following parameters shall be verified whilst the plant is operating under the most unfavourable conditions anticipated and within one month of the plant coming into service:
- a) Residence time
 - b) Minimum temperature of the waste gases
 - c) Oxygen content of the waste gases

Note: interpretation

The emission limit values shall be regarded as being complied with if the conditions described in Part 8 of Annex VI of Directive 2010/75/EU (Industrial Emissions Directive) are fulfilled.

6. RESIDUES

- 6.1 The processes and procedures set out in the Application shall be used to ensure that residues are minimised in their amount and harmfulness and that, where appropriate, residues are recycled, directly in the plant or outside.
- 6.2 Transport and intermediate storage of dry residues shall be carried out in such a way as to prevent dispersal of those residues in the environment.
- 6.3 Prior to determining the routes for the disposal or recycling of the residues, appropriate tests shall be carried out to establish the physical and chemical characteristics and the polluting potential of the residues. Those tests shall concern the total soluble fraction and heavy metals soluble fraction.

Note: interpretation

For the purposes of this Permit, 'residue' shall mean any liquid or solid waste which is generated by a waste incineration plant or waste co-incineration plant.

7. ACTION IN THE CASE OF BREAKDOWN, ACCIDENTS, INCIDENTS AND BREACHES OF PERMIT CONDITIONS

- 7.1 In the event of any incident, accident, malfunction or breakdown resulting in emissions with the potential to have a significant effect on the environment, the operator shall:
 - a) Immediately inform Huntingdonshire District Council;
 - b) Immediately take measures to limit the environmental consequences and prevent further possible incidents or accidents;
 - c) Take additional appropriate measures that the Council considers necessary to limit the environmental consequences and prevent further possible incidents or accidents.
 - d) Record details and actions taken in the log book.
- 7.2 In the event of any breach of permit conditions, the operator shall:
 - a) Immediately inform Huntingdonshire District Council;
 - b) Immediately take measures necessary to ensure that compliance is restored within the shortest possible time;
 - c) Take additional appropriate measures as considered necessary by the Council to restore compliance.
 - d) Record details and actions taken in the log book.

- 7.3 In the event of a breakdown the operator shall reduce or close down the operation of the plant as soon as practicable until normal operations can be restored.
- 7.4 Adverse results from any monitoring activity shall be investigated by the operator as soon as the monitoring data has been obtained/received. The cause shall be identified, corrective action taken and details recorded in the log book. The operator shall inform Huntingdonshire District Council as soon as possible.

8. RECORDS

- 8.1 The operator shall maintain a log book at the installation address incorporating details and dates of all maintenance, examination and testing, inventory checking, installation and repair work carried out, along with details of training given to all staff that operate the process. The log book shall also detail any incidents, abnormal emissions or breaches of the Permit, including dates, together with remedial action taken, and any other information required to demonstrate compliance with this Permit.
- 8.2 The log book shall be kept and retained for a minimum of 2 years and made available for examination by Huntingdonshire District Council if requested.
- 8.3 In addition to the log book, the following records shall be kept by the operator and made available to Huntingdonshire District Council on request.

Table 8.1: Records

| Item to be recorded | Type of record | Retention period |
|-------------------------------------|---|---|
| Waste types and quantities accepted | Consignment notes | Statutory period of 2 years |
| Monitoring of waste gases | Electronic records including all parameters required by permit conditions | 2 years |
| Abnormal conditions | All relevant records including paper reports, emails and other electronic records | 1 year |
| Training | Training given to relevant staff with dates and reviews | Period person is employed in the role + 1 year. |

9. MANAGEMENT

- 9.1 The operator shall manage and operate the activities:
- a) In accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of Abel Energy Limited as a result of complaints; and
 - b) Using sufficient competent persons and resources.

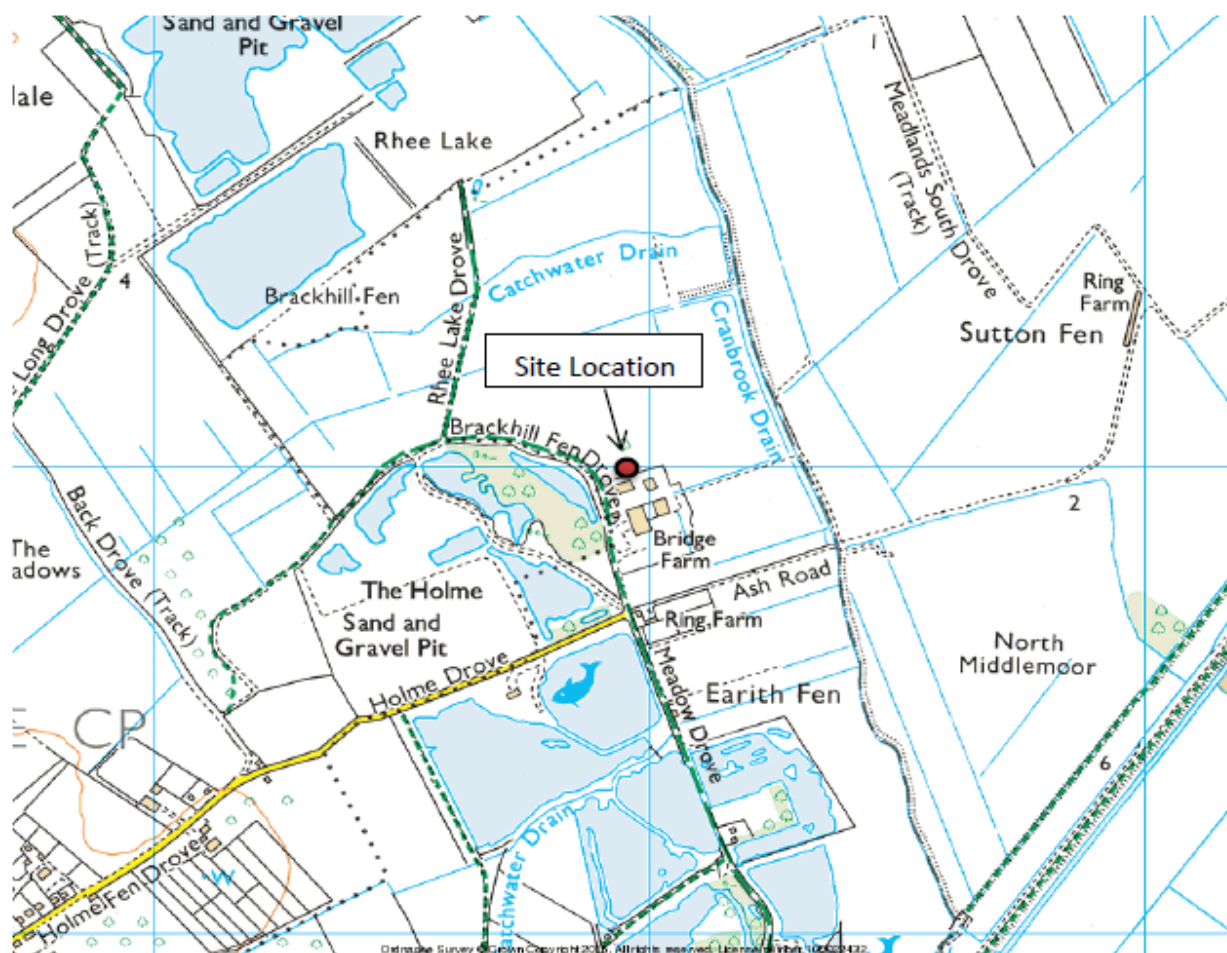
- 9.2 Any person having duties that are or may be affected by the matters set out in this Permit shall have access to a copy and be made aware of its contents.
- 9.3 The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation which is not regulated by any other condition of this permit.
- 9.4 If the operator proposes to make a change in operation of the installation, they must, at least 14 days before making the change, notify the regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

Signed:

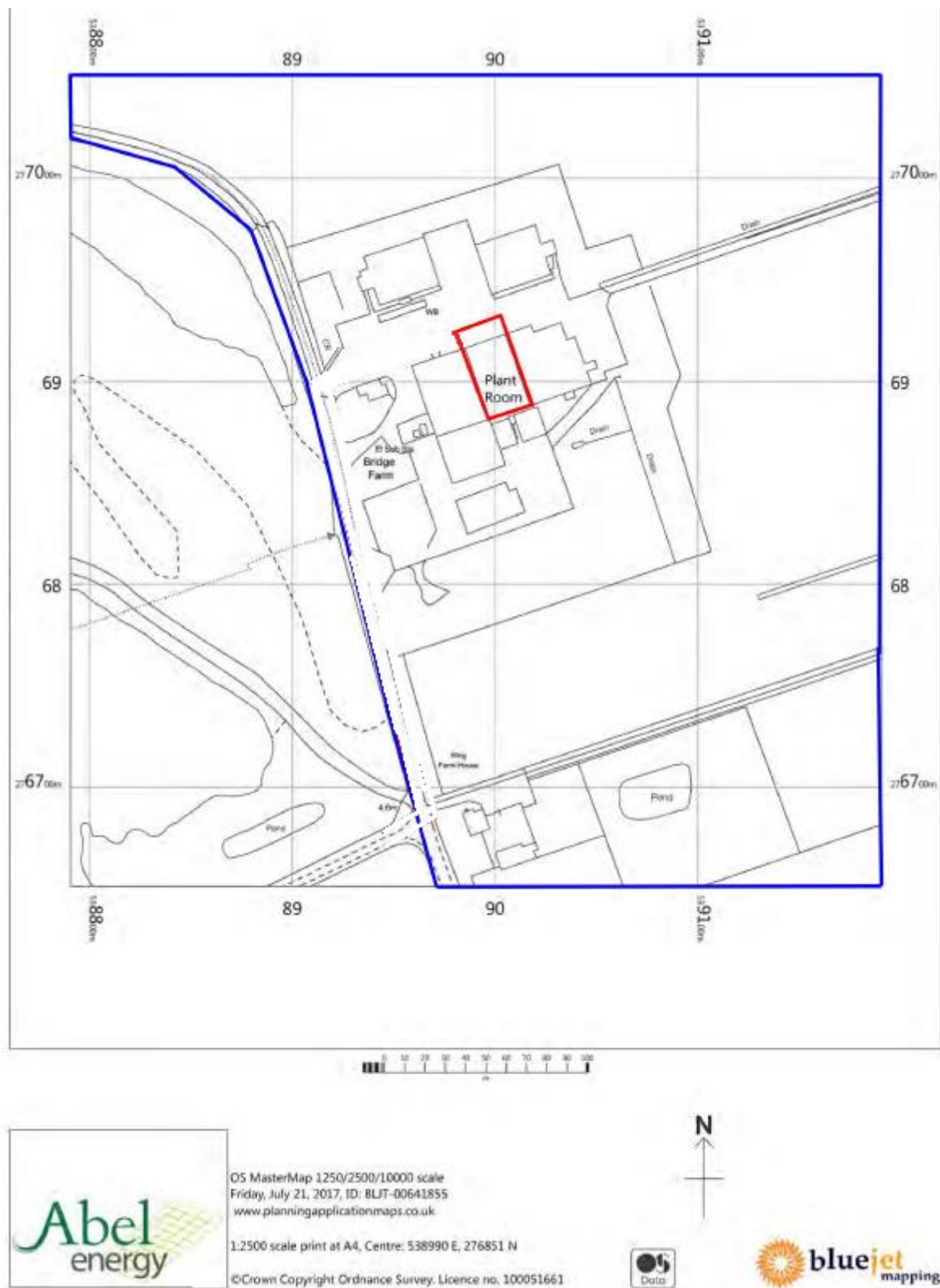
Head of Community

Date:

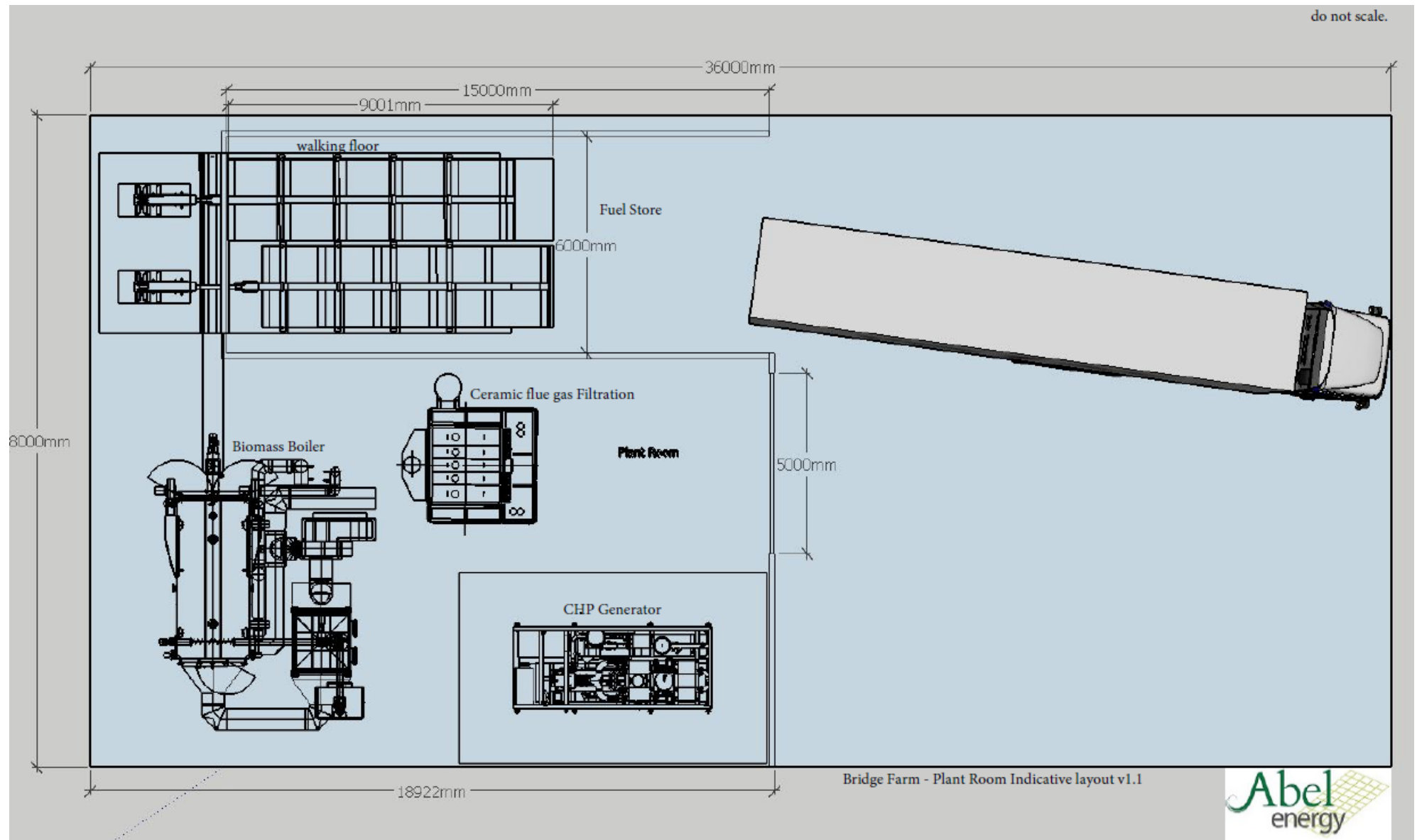
(A) Site location plan



(B) Plant Room Location Plan



(C) Plant room layout



APPENDIX A: ORIGIN OF PERMIT CONDITIONS

The Permit conditions have been utilised to implement the requirements of Schedule 13 of the Environmental Permitting Regulations 2016, to ensure compliance with the following relevant Articles of the Industrial Emissions Directive 2010/75/EU.

| Schedule 13 requirement | Subject | Condition(s) / note(s) |
|----------------------------|---|---|
| Article 5(1) and (3) | Granting of a Permit | Procedural |
| Article 7 | Incidents and accidents | Condition 7.1 |
| Article 8(2) | Non-compliance | Condition 7.2 |
| Article 9 | Emission of greenhouse gasses | Procedural |
| Article 42(1) | Scope | Procedural |
| Article 43 | Definition of residue | Section 6 |
| Article 45(1), (2) and (4) | List of waste types Capacity of plant Emission limit values Sampling frequencies and procedures Permissible periods of abnormal operation | Section 1 Section 1 Section 2 and 4 Section 4 and 5 Section 3 |
| Article 46 | Control of emissions | Section 2, 3 and 4 |
| Article 47 | Breakdown | Section 7 |
| Article 48(1) to (4) | Monitoring of emissions | Section 4 and 5 |
| Article 49 | Compliance with emission limit values | Section 5 |
| Article 50 | Operating conditions | Section 3 |
| Article 51(1) to (3) | Authorising changes to operating conditions | Procedural |
| Article 52 | Delivery and reception of waste | Section 1 |
| Article 53 | Residues | Section 6 |
| Article 54 | Substantial change | Procedural |
| Article 55 | Reporting and public information | Procedural |
| Article 82(5) and (6) | Transitional provisions | Procedural |

GENERAL NOTES

1 Variation

The regulator will ensure that the permit remains up to date in line with the requirements set out in Regulation 20(1). This may involve issuing a Variation Notice following amendment to the Secretary of State's Guidance Notes or following receipt of any direction from the Secretary of State.

2 Review of Conditions

The regulator may at any time undertake a review of the conditions in this permit under Regulation 34(1). Where significant pollution is encountered or where there are changes in BAT or where the operational safety of the activity requires other techniques to be used an immediate review shall be undertaken.

3 Appeal

The permitted operator can appeal in writing to the Secretary of State against the items listed in Regulation 31.

Appeals shall be addressed

to:

The Planning Inspectorate
Environment Team, Major & Specialist Casework
Room 4/04 Kite Wing
Temple Quay House
2 The Square
Temple Quay
Bristol, BS1 6PN

4 Transfer of Permit

The permitted operator who wishes to transfer the whole or part of the permit to a person who proposes to carry out the activity in the holder's place may do so in accordance with Regulation 21. Both the operator and the proposed transferee shall jointly make an application to the regulator to effect the transfer. An application shall include the permit and any fee prescribed in respect of the transfer under Regulation 19 and shall contain the operator's and the proposed transferee's contact details.

5 Variation of Conditions of Permits

Under Regulation 20, the operator may apply to the regulator to vary the conditions contained within the permit. Such application shall be made in accordance with Part 1 of Schedule 5 and shall be accompanied by any fee prescribed in respect of the application under Regulation 19; and paragraphs 8 of Part 1 of Schedule 5 and paragraphs 5(3) and (4) of schedule 5 shall have effect with respect to such applications.

6 Other Legal Requirements

This permit is issued solely for the purpose of the Pollution Prevention and Control Act and its associated Regulations and the operator must ensure that he complies with all other statutory requirements.

7 Annual Subsistence Charge

The Secretary of State has drawn up a charging scheme under Regulation 19. Under this scheme Local Authorities are required to levy an annual subsistence charge related to the permit. The Local Authority will invoice for the amount due which is subject to annual review by the Department of the Environment Food and Rural Affairs.

8 Regulator Contact details

Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
PE29 3TN

Tel: 01480 388 388

E-mail: envhealth@huntingdonshire.gov.uk

Incidents requiring notification occurring outside office hours can be reported by contacting 01480 434 167 and asking for the out of hours officer. In this case notification should also be sent by e-mail to the address above.