



ANCILLARY COMPONENTS LIMITED

Annual Performance Report

for

WID compliant incineration under
Ancillary Components Ltd.
Goosey Lodge Power Plant
Permit NP3338SZ V005

Operating year 2018

Ancillary Components Ltd
Goosey Lodge Power Plant
Goosey Lodge
Wymington
Rushden
Northants NN10 9LU



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1. Introduction

This report is provided under the Industrial Emissions Directive's Article 55(2) and Waste Incineration Directive's Article 12(2): -requirements on access to information and public participation. This requires the operator of an incineration or co-incineration plant to produce an annual report to the Regulator on the functioning and monitoring of the plant and to make this available to the public. To satisfy the requirements of the Directive, the report has been provided to cover the incineration aspects of the permit. A variation was issued in May 2012 to include an anaerobic biological treatment process to produce biogas from receipt of waste and raw materials to produce biogas which is then combusted in the on-site CHP plant. The electricity generated from the biogas improves the overall GLPP operating efficiency and its output is included in the renewable energy benefits whilst the biogas is excluded from the WID.

Hard copies of this report are available on request from the Company.

Name of Company	Ancillary Components Ltd
Name of Plant	Goosey Lodge Power Plant
Permit Number	NP3338SZ V005
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Position	Managing Director

2. Plant Description

The plant is permitted under the Environmental permitting (England and Wales) Regulations 2010.

Key activity for incineration the plant is Permitted under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, (“the PPC Regulations”) to operate an installation carrying out activities covered by the description in Section 5.1A(1)(c) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

Section 5.1A(1)(c) - The incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne or more per hour.

Section 5.3A(1)(c)(ii) - The disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by physico-chemico treatment.

Section 6.8 (A)(1)(c) – The disposal of or recovery of animal carcasses or animal waste other than by rendering or incineration falling within section 5.1 at a plant with treatment capacity exceeding 10 tonnes per day.

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

The main features of the installation are as follows:

The Goosey Lodge Power Plant recovers energy through combustion of a broad range of feedstocks including animal by-products, fuels and wastes. The heat produced is used to generate steam which is used within the Installation and adjoining businesses, and to produce electricity for use on the Installation and for export to the National Grid. The electricity produced is classified as renewable since the energy content in the feedstocks comes from renewable biomass sources.

There are two fluidised bed incinerators each with a capacity of 25 tonnes per hour, equating to a maximum throughput of 438,000 tonnes per year. The Plant has been fully WID compliant since the implementation date of the 28th December 2005 as required by the legislation.

The solid feedstocks are ground to a particular size and conditioned with liquid feedstocks in order to improve combustion. The conditioning liquid and solid feed are mixed to prepare the conditioned fuel and transferred into buffered hoppers ready for injection into the incinerator. The relative rates of the solid and liquid feedstocks are controlled to maintain the required moisture content. The feedstocks are introduced and blended in any proportion provided that the

authorised emission limits will be achieved. Process parameters are continuously monitored to ensure efficient combustion and performance of the abatement equipment. Fuel oil is used as a supplementary fuel at start-up only.

The gases generated by the incineration are treated using a sodium bicarbonate adsorption tower and a bag filtration system. The cleaned exhaust gases from each of the two incineration lines are released to the atmosphere through a single 24m stack, which is the main release point from the Permitted Installation. The resulting emissions to air comply with the requirements of the Permit and the Waste Incineration Directive.

There are no discharges to water or sewer from the Installation. Liquids generated on site, including rainwater, are used within the process. There are no discharges to groundwater.

Emissions to air are monitored using both continuous monitoring and spot-sampling techniques.

Solid waste streams generated at the Permitted Installation are: ashes from the fluidised bed; fly ash deposited in the waste heat recovery boiler; and fly ash including used sorbent collected in the bag filters, which differs in composition due to the residues from sorbent addition and acid gas removal. These are stored in closed containers before disposal to landfill or alternative use.

An impact assessment of routine operations has demonstrated that the emissions from the Permitted Installation do not have a significant impact on the surrounding environment.

There are no European designated sites or Sites of Special Scientific Interest (SSSI) that are likely to be affected by the operations of the Permitted Installation.

The potential for accidents that could adversely affect the environment is not considered to be significant.

The Permitted Installation is managed under a fully Integrated Management System (IMS) incorporating the internationally recognised Environmental Management System ISO14001, Quality Standard ISO 9000 and Health and Safety Standard ISO 18000 audited and approved by Lloyds Register Quality Assurance.

The Permitted Installation is an incineration plant as defined by the Waste Incineration Directive and complies with the applicable requirements as a minimum.

The Waste Incineration (England and Wales) Regulations 2002 (SI 2002 No. 2980) (The WI Regulations) and the Pollution Prevention and Control (Waste Incineration Directive) (England and Wales) Direction 2002 together implement the requirements of the Waste Incineration Directive (Directive (EC 2000/76/EC)) on the Incineration of Waste. Conditions delivering the corresponding requirements of the relevant articles of the Waste Incineration Directive have been incorporated into the current Permit.

Considerable information relating to Permits including this installation is available on public registers¹ in accordance with the requirements of the PPC Regulations.

3. Summary of Operation

The plant operated continuously throughout 2018 with planned maintenance carried out on one stream at a time.

Time lost due to unplanned shutdowns was less than 5%

The plant processed 156,983 tonnes of feedstocks, comprising Animal By Products, wood, food wastes and liquids and generated 98,568,570 kWh of renewable energy, exporting 71,131,454 kWh to The National Grid, in addition to providing the energy to run the plant and the Goosey Lodge Industrial Estate. This exported energy would have provided the electricity requirements of some 21,500 households (based on an average UK annual consumption per household of 3,300kWh per year).

20,680 tonnes of non hazardous ash were produced of which 8,247 tonnes were disposed to inert landfill and 12,433 tonnes were recovered.

As all the energy is provided from renewable sources the plant is carbon neutral with the CO₂ produced in combustion offsetting that from fossil fuelled power generation.

Every unit (kWh) of electricity produced from renewable sources displaces a unit of electricity which might otherwise have been produced by a power station burning fossil fuel². Nuclear power plants and the majority of gas fired power plants operate at base-load, therefore it is the output from coal-fired and some gas fired plant which is adjusted to meet the increases in electricity demand above this base-load on the system.

The following typical emissions from UK power generating plant are used to calculate emissions reductions for renewable energy production. This is based on the most conservative published data for all UK stations:

carbon dioxide (CO₂) – 430 g/kWh

On this basis the renewable power produced has reduced the requirement for fossil fuel combustion which would have emitted some 42,000 tonnes of CO₂ in the year.

¹ See list in section 7

² BWEA 2006a

4. Summary of Monitoring.

The plant is fitted with Continuous Emissions Monitors, approved under the Agency led MCERTS scheme for:

Particulates
Oxides of Nitrogen
Sulphur Dioxide
Carbon Monoxide
Oxygen
Water vapour
Temperature
Pressure
Total Organic Carbon
Hydrogen Chloride

Periodic monitoring is carried out by independent monitoring teams also with MCERTS approval and utilising fully UKAS accredited techniques for:

Particulates
Oxides of Nitrogen
Sulphur Dioxide
Carbon Monoxide
Oxygen
Water vapour
Temperature
Pressure
Total Organic Carbon
Hydrogen Chloride
Mercury
Cadmium and Thallium
Group III metals
PCDD and PCDF
Hydrogen Fluoride
Organic carbon in ash
Residual protein in ash

5. Summary of Plant Compliance

The plant emissions were continuously monitored for 100% of the plant operating time with the installed Continuous Emissions Monitors (main and back-up).

At all times, the plant operated in compliance with the Permit conditions.

There were no exceedences or non-compliances requiring notification to the Environment Agency and no periods of “abnormal operation”

No enforcement actions were taken or required.

6. Summary of Plant Improvements.

There are no outstanding improvement conditions.

7. Summary of information availability

Hard copies of this report are available on request from the Company.

Public Registers are held at:

The Environment Agency, IPPC Public Register, Kingfisher House, Goldhay Way, Orton Goldhay, Peterborough, PE2 5ZR.

IPPC Public Register, Environmental Health, Bedford Borough Council, St Paul’s Square, Bedford, MK40 1SG.

Members of the public can inspect these registers free of charge at the above stated addresses during normal office hours (9am – 5pm Monday to Friday). In addition, members of the public who wish to obtain a copy of the relevant information contained in the registers can do so upon the payment of a reasonable charge to cover the costs of copying.