NFU ENERGY

Medium Combustion Plant Simple Bespoke Permit Application

For

S&A Produce (UK) Ltd

Springfield Nursery, Sutton Road, Llandow, Cowbridge, CF71 7PA

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NFU Energy

At NFU Energy, we collaborate with farmers and growers, industry organisations, government departments, utility companies and manufacturers, and provide advice and practical support to businesses, with a special focus on agriculture and horticulture.

Delivering a knowledgeable, professional, responsive and caring end-to-end business energy service for our clients. Maximising the effectiveness of energy in their business through energy efficiency improvement and environmental impact reduction, smart energy purchasing and generation earnings optimisation.

Our in-house team have experts in MCPD, RHI, Carbon Reporting, Compliance Services and renewable technologies, to name a few, and are on hand to assist with any energy support you may need. Being a part of the NFU means we understand farmers and know what support they need to assist them on their journey.

S&A Produce (UK) Ltd

Our client, S&A Produce (UK) Ltd are independently owned British family business with glasshouse and polytunnel sites in Cowbridge, Hereford and Kent. They also have global operations in Spain, Gran Canaria and South America. They are one of the largest independent soft fruit growers in Europe, supplying strawberries, raspberries, blackberries, blueberries and British asparagus to major retailers. S&A use innovative growing techniques to continuously produce soft fruit of exceptional quality, including pioneering research to develop superior fruit quality, flavour and consistency.

Medium Combustion Plant Directive

The Medium Combustion Plant Directive (MCPD) is air quality legislation that regulates the emissions from equipment such as boilers and generators between 1 MW and 50 MW fuel combustion capacity (thermal input).

New Medium Combustion Plants (MCPs) are those over 1 MWth input that are operational **after** 20 December 2018 required an MCPD permit.

Existing MCPs are plants that were operational **before** 20 December 2018 and are required to be permitted by their respective regulatory date:

- Over 5 MWth input: 01/01/2024, with emission limits to be met by 01/01/2025
- Between 1 MWth and 5 MWth input: 01/01/2029, with emission limits to be met by 01/01/2030

There are two types of Bespoke MCPD permit, Simple and Complex, depending on whether the permittable plants screen out of vulnerable habitat screening distances or at SCAIL, which would allow a simple bespoke permit to be applied for, or not, resulting in a complex bespoke permit.

The Springfield Nursery site in Cowbridge has screened out for vulnerable habitats (page 7) and therefore wish to apply for a Simple Bespoke MCPD Permit.

Summary of Activities to be Permitted

Springfield Nursery is a glasshouse and polytunnel soft fruit grower located in Cowbridge, South Glamorgan, Wales.

The site operates a new status 3.75 MWth input Stationary Medium Combustion Plant (MCP) for the production of heat for on-site. The plant runs on Liquified Propane Gas (LPG), not grid natural gas, due to its remote nature. The glasshouses have a heating season of September to May during which the plants will operate to provide heat to meet demands. This is stored in a thermal buffer tank and distributed around site before circulating back to the boiler for reheating.

Table 1 contains the key details of the combustion plant, of which the thermal input capacity is designated by the burner as plants can be downgraded to a smaller size by retrofitting the burner without having to change the boiler shell.

Plant Details	LPG Boiler
Emission Source NGR	SS 95178 72675
Installation Date	02 September 2021
Boiler Shell Make and Model	BKC WND3.00
Boiler Shell S/N	21-288
Burner Make and Model	Vitotherm VGI/s-300
Boiler Burner S/N	21-9137
Burner Thermal Input Capacity	3.75 MWth
Fuel Type	Propane (LPG)
Flue Height	6m
Annual Operation	8,322 hrs

Table 1: Combustion Plant Details

Emissions to Air

The plant will meet the MCPD NO_2 emission limits without additional abatement systems (200 mg/m^3 for the MCPs at 3% oxygen) as well as be monitored for Carbon Monoxide emissions (no set limit) during the 3 yearly extractive testing with an MCERT accredited testing laboratory.

Maintenance and Servicing is regularly scheduled with the boiler manufacturer, undertaken by their qualified engineers to ensure optimum operating conditions.

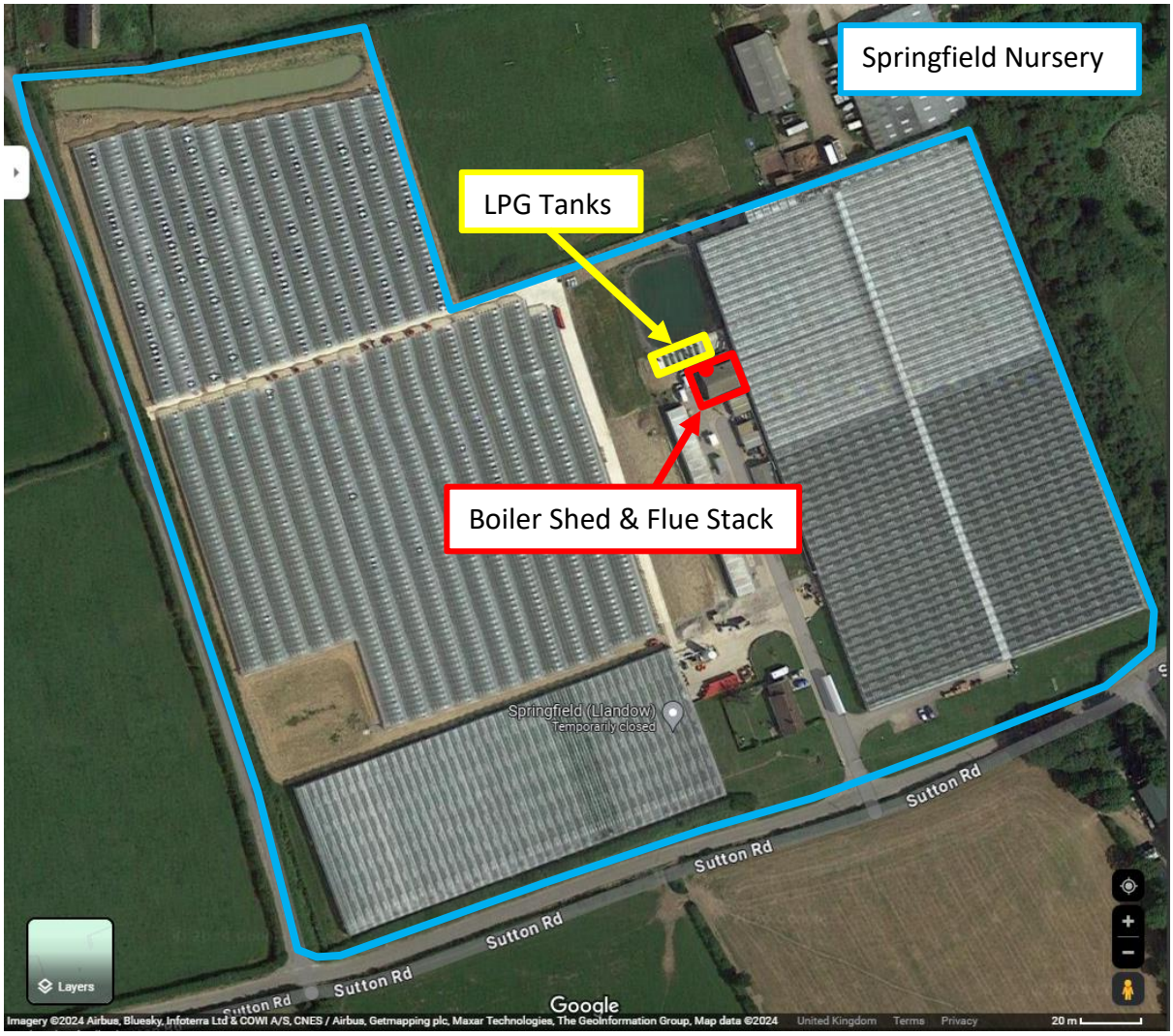
Associated emission testing and maintenance records will be kept in a custom Environmental Management System, along with other critical documents and records for ongoing compliance. This EMS is developed and tailored for each permitted client by NFU Energy (page 8) as per the UK Guidance on Management Systems for Environmental Permits and covers the core elements of ISO 14001 but is not fully ISO accredited.

MCP Location and Directly Associated Activities

The site is situated in the Vale of Glamorgan Welsh Local Authority, NGR: SS 95178 72675.

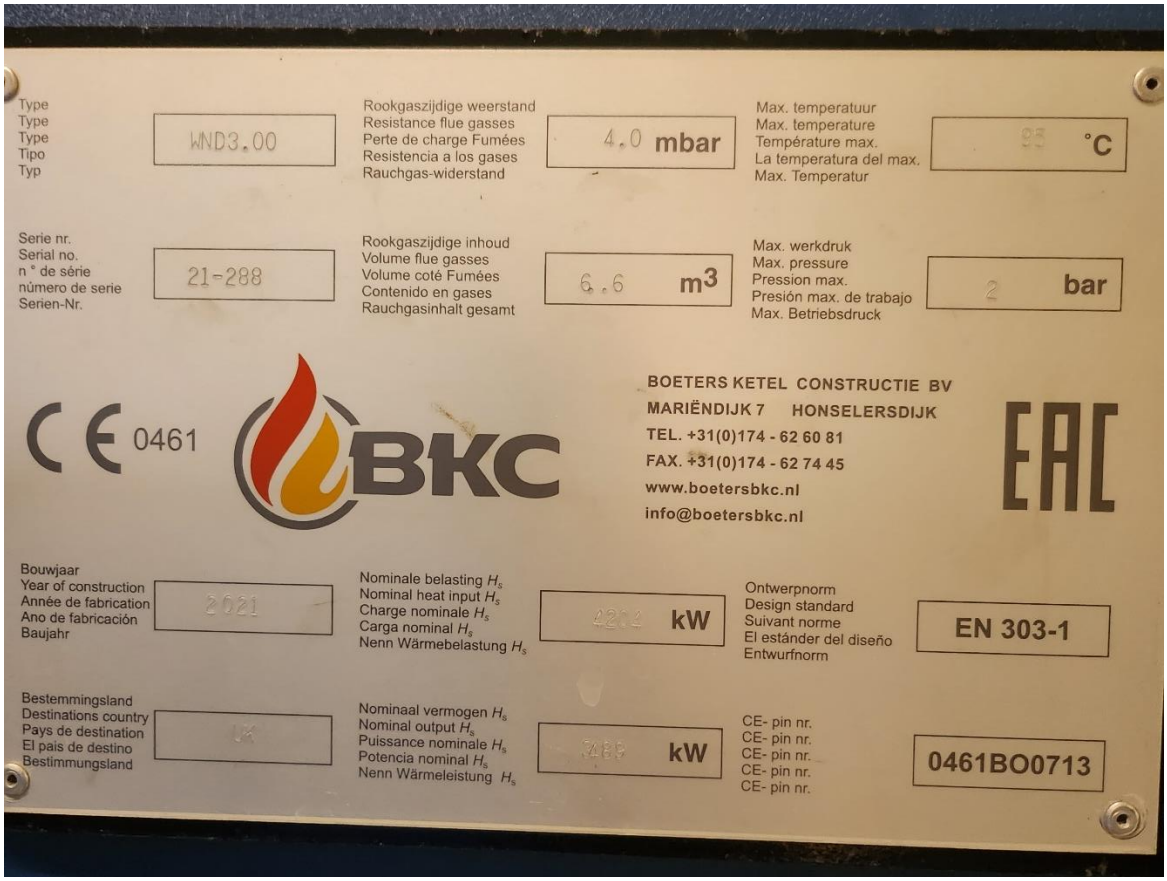
The boiler is located within the centre of the site boundary, with emergency services access directly opposite the site main entrance.

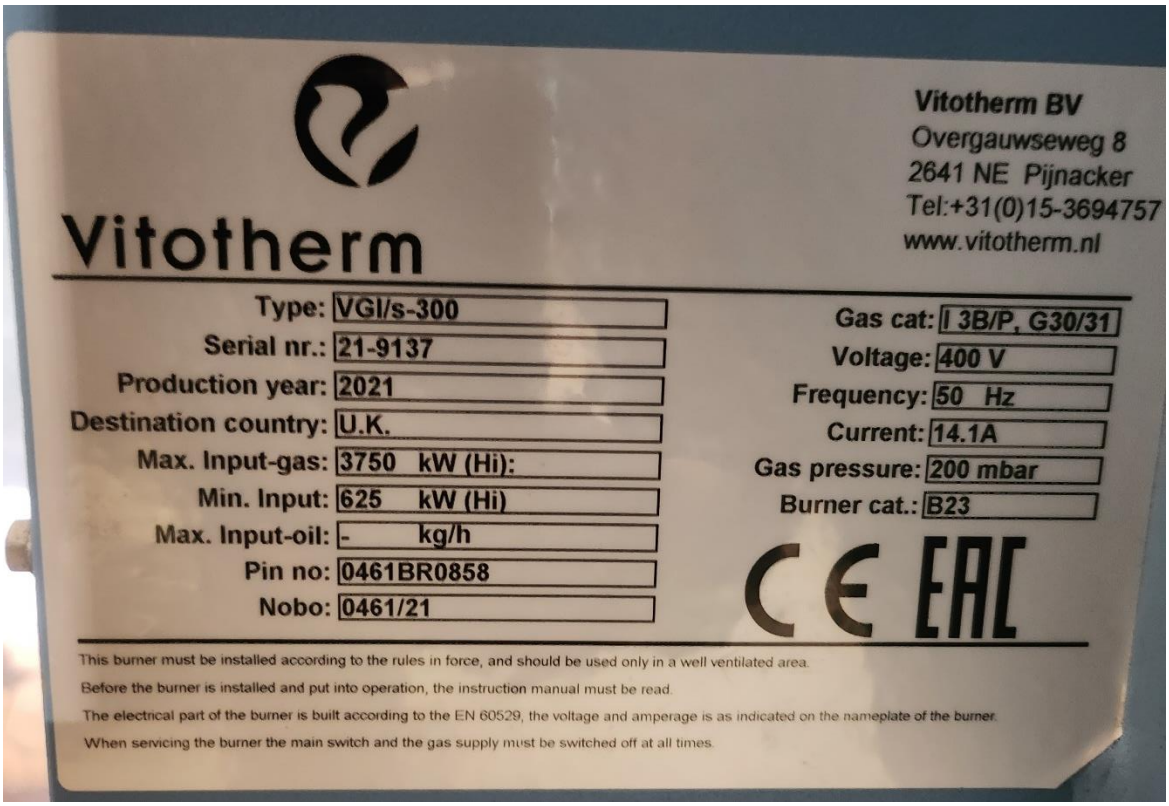
There are six LPG storage tanks located on a concrete pad next to the boiler shed, each capable of holding 4000 litres. Each tank is bolted to the pad for security; the gas flowing through a vaporiser/burnt before ignition in the boiler. Only one tank is refilled at a time and firefighting equipment is always deployed when delivery is taking place in the event of an emergency.



Site Photos

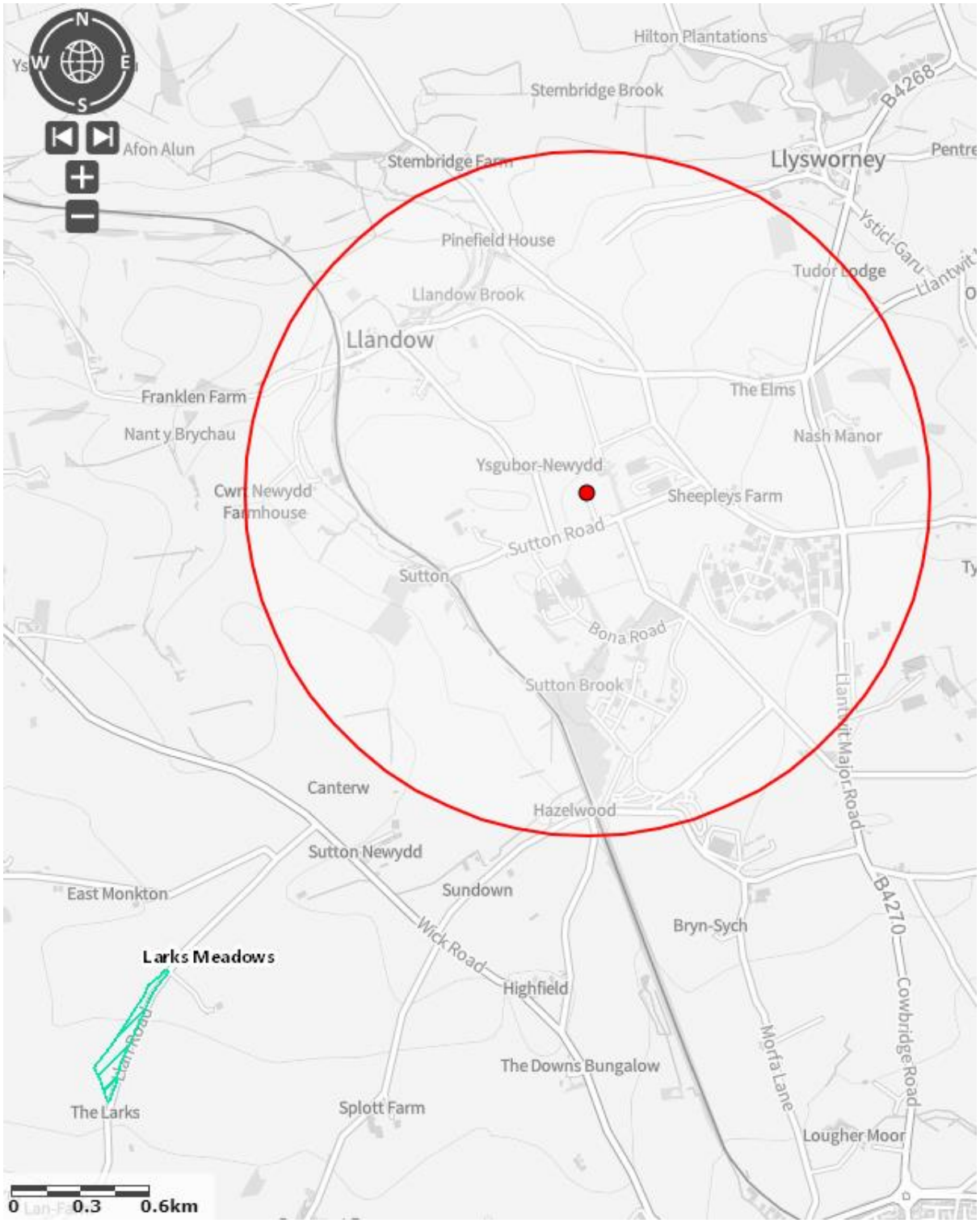
Plant Nameplate Photos





Habitat Screening

No SSSI, MCZ's, Ramsar, SAC or SPA sites within the 1.5km screening distance for MCP's between 1 and 5 MWth input operating on propane (gaseous fuel other than natural gas), as per EPR guidance on GOV.UK.



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Environmental Management System Summary

The NFU Energy Environmental Management System (EMS) for Environmental Regulatory Permits has been developed in accordance with guidance from the UK Government, and integration of core elements of the BS EN ISO 14001:2015 and BS 8555:2016 standards. Please note this is not an ISO 14001 certified document; companies can choose whether or not to go through the certification process, but we endeavour to implement its core areas of best practice and make annual improvements.

A multi-tier system has been developed and tailor made to each sites specific permit requirements, including MCPD, Specific Generator, Part B, and Part A1. The EMS is designed to help plant operators understand the ongoing compliance requirements of the site's environmental permit, such as fuel record keeping, maintenance logs, staff training, adverse events, climate change risk and adaptation, and periodic extractive testing and emission monitoring.

Implementation of the NFU Energy EMS will help permitted users to:

- Understand what is expected to achieve and maintain compliance with their environmental permit; including summaries of site activities, instruments in operation, and their abatement (if applicable).
- Schedule emissions monitoring, testing, and recording results within the limits of their permit; full summaries of the types of monitoring, frequency of testing, and recording sheets/systems have been specifically developed for each type of permit.
- Manage and reduce their site's environmental impact through staff training, communicating staff awareness, equipment maintenance, site contingency plans, and accident prevention procedures. Documentation is to be kept for each type of record keeping for demonstration of ongoing compliance.
- Know when and how to notify the permit regulator regarding abnormal emissions, adverse events, and accidents that occur on site.
- Assess, monitor and mitigate against potential climate change risks through risk assessments and adaptation plans, as well as ensuring emergency site procedures and protocols are in place.
- Develop and maintain staff understanding so that they can use the EMS, as well as advise on where to store it and key records on site.
- Ensure that contractors and staff have recorded evidence of competence and ongoing development.
- Assist NFU Energy for at least one annual review and audit on the EMS in order to keep it up to date and review ongoing compliance, including the integration of improvements for better environmental compliance and reduction of environmental impacts. A checklist has been produced that dictates a summary of the EMS, how each document is tailored for the site specific permit, and highlights which sections are currently included, amended, and where excluded sections need to be introduced when applicable.

NFU Energy provides full training for all tailored EMS clients, including a run-through of their permit, to help them obtain a comprehensive understanding of what their ongoing compliance entails. This training ensures a transparent handover, which can then be passed on to other/new members of staff for ongoing compliance.