Permitting decisions – Bespoke Permit

We have decided to grant the permit for Staircraft Ansty operated by Staircraft Group Limited.

The permit number is EPR/EP3129LA.

This permit was granted on 12/09/2025.

The application is for a new Medium Combustion Plant Directive (MCPD) permit to operate a 1.1MWth biomass boiler for the incineration of waste wood to generate heat for use at the timber and wood product manufacturing facility operated by Staircraft. The installation is the sole source of wood for incineration in the biomass boiler, and we have restricted the wood type to 03 01 05 Sawdust, shavings, cuttings, wood particle board and veneer that is fixed to the board, other than those mentioned ion 03 01 04 (no chemical treatment).

Burning of waste wood is normally subject to the requirements of Chapter IV of the Industrial Emissions Directive (incineration of waste), however is excluded for the purposes of this application due to regulatory position on incineration of waste wood :-

Regulatory Position for incineration of waste wood

Small waste wood incinerators (where the thermal input is 1MW to 18MW or a feed rate of 220kg/hour to 3 tonnes/hr) are excluded from the requirements of Chapter IV of the Industrial Emissions Directive, where the incinerator is incinerating types of biomass that are excluded from chapter IV. This includes wood waste not containing halogenated organic compounds or heavy metals (as a result of treatment with wood preservatives or coating). *The exclusion is the same in MCPD Article 3(18) as that defined as waste excluded from chapter IV of IED.*

The applicant has been clear they do not use any type of wood preservatives in their process, and their description is consistent with PG5_1 guidance. An MSDS has been provided to confirm this, and we are therefore assured that the waste does not contain halogenated organic compounds or heavy metals and therefore is excluded from the requirements of chapter IV of IED.

Source of Wood Waste

The adjacent timber manufacturing activities (that supplies the wood waste) are regulated under Section 6.6, Part B (a) manufacturing products wholly or mainly of wood. This permit is issued and maintained by Rugby Borough Council.

The MCP permit does not include the storage of waste wood. No waste is imported into the installation for incineration. The operator is storing their own arisings under the S6.6 permit.

As the boiler is powered by the burning of waste wood in a small waste incineration plant (SWIP) with an aggregated capacity of 50kg or more per hour (and less than 3 tonnes), the combustion activity is also a Section 5.1 Part B activity under the Environmental Permitting Regulations.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It:

- summarises the decision making process in the decision considerations section to show how the main relevant factors have been taken into account
- highlights key issues in the determination

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit.

Key issues of the decision

Air Quality

This is a complex bespoke Medium Combustion Plant application. It is also a small waste incineration plant (SWIP), listed as an installation activity in the EP Regulations Schedule 1, Part 2, Chapter 5, Section 5.1 Part B(a)(v). In line with the Environment Agency's guidance (https://www.gov.uk/guidance/specified-generators-dispersion-modelling-assessment and https://www.gov.uk/guidance/medium-combustion-plant-apply-for-an-environmental-permit#apply-for-a-bespoke-permit), we require applicants to submit detailed air dispersion modelling and impact assessment to assess the predicted impacts on human receptors (for example dwellings, work places and parks) and ecological sites, as appropriate.

A methodology for risk assessment of point source emissions to air is set out in our guidance https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit.

The applicant provided an assessment of the impact of emissions to air with the application which is detailed in document: *Staircraft – Stentor Way, Air Quality Assessment. October 2024. Report Ref:01.0324.001(v2).*

We have reviewed the assessment and are satisfied that it has taken into account all relevant human health receptors, that the model and its inputs are appropriate and that the assessment has been carried out in accordance with our guidance.

The document referenced the burning of virgin wood. The operator confirmed the assessment had been undertaken considering the combustion of waste wood from the manufacturing facility. They stated they used the term virgin wood to mean waste would not sourced from other sites.

We agree with the operator's predictions that all Air Quality Directive limit values at nearby receptors are well within thresholds with no potential for breach of the air quality objectives.

In support of the air quality assessment (which only considered NOx and particulates) the operator submitted a H1 assessment to air which in addition considered carbon monoxide and Volatile Organic Compounds (VOC). Treating all VOCs as benzene and then differentiated to formaldehyde with values derived from the material data sheet. All releases screen out as requiring no further assessment within the H1 Tool.

Best Available Techniques (BAT) Assessment

We have reviewed the operating techniques against our guidance on Medium Combustion Plant and specifically, permitting technical guidance note PG5/1(21) Reference document for the incineration of waste wood. We are satisfied that the proposed measures represent BAT for the installation. A summary is presented below:

Acceptable waste to be burnt

The wood waste used for the biomass boiler will comprise wood dust and particulates generated from the separately permitted Part B timber activities on site. Only clean waste wood EWC 03 01 05 as described in PG5_1 will be incinerated within the biomass boiler.

Whilst the waste is site derived (adjacent site) and used within the facility, we have included a waste code table within the permit and tied the operator to the specified waste code in schedule 2 of the permit.

Plant design and operation

BAT is to ensure uniform fuel size, dry storage, continuous automated feed.

The operator has confirmed the dust and particulates (generated from the adjacent manufacturing process) will be collected within the abatement system for the Part B manufacturing activity and stored in an enclosed hopper. From here the fuel will be continuously fed into the combustion chamber via screw conveyor equipped with sensors to monitor and adjust the fuel feed rate according to the fuel demand of the biomass burner. Should the chamber be at capacity or offline fuel dust will be automatically transferred to two enclosed trailers. The entire process is fully enclosed.

Programme logic control (PLC) controls the combustion time, temperature, oxygen levels and balance primary and secondary air.

Combustion gases are directed to the boiler to heat the water system. The boiler is equipped with a modulation system capable of modifying the boiler output in response to heat demand whilst maintaining high combustion efficiency. The heat generated is used to heat water in the boiler which is used to heat the manufacturing building.

Abatement

The operator confirmed a ceramic filter (for the abatement of particulate matter) is installed with stated abatement efficiency of 1mg/$m^{3.}$ The combustion techniques described above will minimize emissions. Waste wood will not be burnt during startup from cold. The combustion zone temperature will be raised using an ancillary burner fired by gas or virgin wood.

Waste to be incinerated

The operator has confirmed only clean wood consistent with EWC 03 01 05 from the manufacturing activities will be combusted within the boiler. They state they do not apply wood preservatives or coatings other than water-based paint. All waste movement will be accompanied by a signed note, including written description of the waste and waste classification code.

Waste wood will be stored prior to treatment in closed trailers under the operators existing Section 6.6 Part B permit which covers their manufacturing activities.

Although the waste arises from their own onsite activities it has been assigned a waste code within the permit and restricted to EWC 03 01 05 within schedule 2 of the permit (and by table S1.2 Operating Techniques).

Bottom ash storage and disposal

Both fly ash and bottom ash are automatically removed by a cleaning mechanism using compressed air and directed to a contained storage unit prior to disposal.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Operator

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.

The regulated facility

The regulated facility comprises of one wood fired MCP boiler located at Staircraft, Ansty to provide space heating to for the manufacturing facility.

The operator has provided the grid reference for the emission point from the medium combustion plant.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation and habitat designations. The application is not within our screening distances for these designations.

Based on MCP guidance, we find the relevant screening distance for both European sites and Sites of Special Scientific Interest (SSSI) to be 750 m. Local nature sites do not need to be considered for MCPs. there are no Special Protection Areas (SPA), Special Area of Conservation (SAC), Ramsar or Sites of Special Scientific Interest (SSSI) sites that require assessment.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

Operating techniques

We have specified the operating techniques, and the operator must use the operating techniques specified in table S1.2 of the permit.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Emission Limits

Emission Limit Values (ELVs) have been set for the following substances:

- Oxides of nitrogen (NO and NO_2, expressed as NO_2) at 500 mg/Nm^3
- Carbon monoxide (CO) at 225 mg/Nm^3
- Dust at 50 mg/Nm^3
- Total Volatile Organic Compounds (TVOC) at 30 mg/Nm^3
- Hydrogen cyanide (HCN) 7.5 mg/Nm^3
- Formaldehyde 7.5 mg/Nm^3

ELVs have been set at an oxygen reference condition of 6%, which is in line with Schedule 25A (Medium Combustion Plant) of the Environmental Permitting (England and Wales) (Amendment) Regulations 2018.

We made these decisions in accordance with MCP technical guidance

Medium Combustion Plant guidance: https://www.gov.uk/guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply

Monitoring

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.

These monitoring requirements have been included in order for the operator to demonstrate compliance with the emission limits specified in the permit. The operator will carry out monitoring in accordance with the relevant methods specified in the permit.

We made these decisions in accordance with MCP technical guidance.

Medium Combustion Plant guidance: https://www.gov.uk/guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply

Reporting

We have specified reporting in the permit.

We made these decisions in accordance with MCP technical guidance.

Medium Combustion Plant guidance: https://www.gov.uk/guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply

Management System

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.