

Permitting Decisions - Bespoke Permit

We have decided to grant the permit for Shepshed Feed Mill CHP Plant operated by BLACK BROOK CHP LTD.

The permit number is EPR/YP3003MQ/A001.

The application is for a new bespoke permit for the operation of a gas fired combined heat and power (CHP) plant, and ancillary waste heat boiler, with a net rated thermal input of 3.696 MWth, as a Directly Associated Activity (DAA).

BLACK BROOK CHP LTD will operate the plant to provide heat and power to the adjacent animal feed mill (Food and Drink Installation, permit reference EPR/GP3133TW) operated by GLW Feeds Limited.

Each are permitted separately but together form a Multi-operator Installation. The interaction between the two entities is captured in each Operator's Environmental Management System.

We consider in reaching our 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
- shows how we have considered the [consultation responses](#)

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

Emissions to air

The Applicant submitted an Air Quality Impact Assessment, undertaken using the Atmospheric Dispersion Modelling System ADMS 5.2, to assess the impacts of the products of combustion to air from the plant, via a 22m high stack.

Whilst the outcome of the assessment appears to demonstrate that the predicted impacts cannot be considered to be “insignificant”, these not insignificant impacts are predicted at locations that we would not consider to be sensitive receptors, for the purposes of protecting human health.

Using our internal screening tools, we refined this assessment and conclude that the off-site impacts for the proposal are insignificant, and are unlikely to impact on human health or ecological receptors. The main impacts are within the boundary of the installation, due to building downwash. However, this is still a conservative estimate as the background concentrations used (road-side NOx concentrations) are unlikely to be representative.

It should be noted that the plant also replaces older less efficient plant currently operated at the Animal Feed Mill, and meets the Emission Limit Values as specified under the Medium Combustion Plant Directive.

Emissions to water

The proposal includes the discharge of boiler blowdown and spent water softener, arising from the ancillary waste heat boiler, to sewer. The discharge is made via a private connection; which transfers this wastewater to the adjacent animal feed mill for discharge to public sewer under their trade effluent consent, issued by Severn Trent Water.

No impact assessment was included with the application for this proposed discharge. However, we recognise that the proposed discharge quantities are not significant and we have seen consent has been granted by the sewerage undertaker.

At this stage, no further assessment is required as this will be reviewed holistically as part of the FDM BRef Permit Review for the adjacent site.

Impact on ecological receptors

The following ecological receptors were identified as being within the relevant screening distances for emissions to air (non-coal fired sources):

Data	Details	Within	Search Direction
Sites of Special Scientific Interest - England	Name: Newhurst Quarry (SSSI)	409m	Radial
	Name: Ives Head (SSSI)	1573m	Radial
Local Nature Reserves - England	Name: Morley Quarry (LNR)	1158m	Radial
Local Wildlife Sites	Name: British Piece	1891m	Radial
	Name: Holywell Wood	1778m	Radial
	Name: Burleigh Wood	1999m	Radial
	Name: Hermitage Estate	1307m	Radial
	Name: Nanpantan Hall Wood	1944m	Radial
	Name: Longcliffe Golf Course	867m	Radial
	Name: Morley Quarry	1183m	Radial
	Name: White Horse Wood	1655m	Radial
	Name: Iveshead	1556m	Radial
	Name: Morley Lane Field	1060m	Radial
Ancient Woodland - England	Woodland name:	1999m	Radial
	Woodland name: HOLYWELL WOOD	1778m	Radial
	Woodland name: WHITE HORSE WOOD	1656m	Radial

Further screening was undertaken using the screening distances as specified under AQTAG 14: *Guidance on identifying 'relevance' for assessment under the Habitats Regulations for PPC installations with combustion processes.*

Based on the size of the proposed plant, and the screening distances prescribed in AQTAG 14, no further assessment is required.

In any case, we are satisfied, based on the outcome of the air quality assessment, that the proposal is unlikely to have a significant impact on any nearby ecological receptors.

Noise impacts

The Applicant submitted a Noise Impact Assessment based on BS 4142:2014 *'Methods for Rating and Assessing Industrial and Commercial Sound'*.

Using our internal screening tools, we identified that based on the location and operation of the plant, a Noise Impact Assessment (NIA) and/or Noise Management Plan (NMP) were not required for permitting purposes.

On that basis, no detailed review of the NIA has been undertaken by us but we note that the predicted impacts are low and the assessment was produced to demonstrate compliance with planning conditions.

In any case, permit conditions 3.4.1 and 3.4.2 protect nearby sensitive receptors from significant noise impacts and would enable us to require the Applicant to submit a NMP in future should this be deemed to be necessary.

Decision considerations

Confidential information

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

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

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.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Local Authority Planning and Environmental Protection.
- Public Health England and Director of Public Health.
- Health and Safety Executive.

Operator

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of part 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

We considered the extent and nature of the facilities at the site in accordance with RGN2 'Understanding the meaning of regulated facility and Appendix 2 of RGN2 'Defining the scope of the installation'.

This permit applies to only one part of the installation – the operation of a CHP plant as a DAA. The names and permit numbers of the operators of other parts of the installation are detailed in the permit's introductory note.

The site

The operator has provided a plan which we consider to be satisfactory.

The plans show the location of the part of the installation to which this permit applies on that site.

The plan is included in the permit.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports.

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, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England.

The decision was taken in accordance with our guidance.

Environmental risk

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

The operator's risk assessment is satisfactory.

Climate change adaptation

We have assessed the climate change adaptation risk assessment.

We consider the climate change adaptation risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that screen out as insignificant

Emissions of NO_x and CO have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

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.

Raw materials

We have specified limits and controls on the use of raw materials and fuels.

Emission Limits

Emission Limit Values (ELVs) have been included for NO_x.

We have included these limits based on the requirements of the Medium Combustion Plant Directive.

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 to comply with the requirements of the Medium Combustion Plant Directive.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have specified reporting in the permit.

We made these decisions in accordance with the Medium Combustion Plant Directive and our Technical Guidance.

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.

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.

Consultation Responses

Responses from organisations listed in the consultation section:

Response received from Public Health England.

Brief summary of issues raised: No significant concerns.

Summary of actions taken: No actions necessary.

Response received from Charnwood Borough Council Environmental Protection.

Brief summary of issues raised:

1. The Noise Impact Assessment does not consider the impacts at Cowhill Lodge.
2. Recommend that the permit includes a condition to reduce noise levels by at least 10dB to give an overall noise level of no more than 65dBA at 1m from the unit.
3. The Air Quality Assessment does not include the impacts of particulate matter.
4. The [Air Quality] report submitted is support of the recent planning application recommended a stack height of 30 meters. I note the current assessment/permit application is for a 22 meter stack. I would therefore seek clarification and the justification for the reduced stack height to ensure any emissions are adequately dispersed and diluted.

Summary of actions taken:

We provided the Applicant with an opportunity to provide any additional information in response to the comments raised. Their observations were as follows:

In regard to noise conditions, it is the Applicant's view that the operator has made clear and unambiguous statements in the application to confirm that the unit to be installed will meet the specification of a noise rating of 65dB at 1m. This requirement has been specified in the Engineering, Procurement, and Construction (EPC) contract for the project, and as such will be subject to contractual obligation on the part of the technology provider. This is sufficient reassurance that the plant will meet BAT in this regard and therefore no specified permit condition will be necessary to achieve this outcome.

In regard to the air quality matters, the planning application for the site was submitted based on the installation of two CHP units to be installed at the GLW

Feeds site, one to serve the GLW feeds site and the second to serve the neighbouring BOAL factory site. An assessment of the combined impacts of these two engines found that a 30m stack was indicated to ensure that no impacts would occur. The operator has now installed just one CHP engine at the site to serve the GLW feeds factory. There is currently no intention to install the second engine. On this basis an air quality impact assessment was carried out and submitted to support the permit application based on a single CHP engine operating at the site. Given the reduction in emissions arising from the single unit compared with the originally proposed two units, the modelling report concluded that “emissions from the Lindum Mill facility, operating a single CHP discharging through a 22m tall stack will not have a significant effect on local air quality”. This is the rationale for the reduction in stack height from the 30m stated in the planning application to the 22m stated in the permit application.

In carrying out the air quality impact assessment, the MCP emissions rates specified for CHP operating on natural mains gas have been used as the basis of the assessment. With gas as a fuel, no emission limit is provided for particulate matter (PM). Defra’s TGN16 considers emissions from commercial and domestic CHPs operating on gas, and this specifies that NO2 is the primary pollutant of concern. On this basis no assessment has been made for PM.

In terms of the assessment undertaken by the Environment Agency, our response to the comments raised is as follows:

1. Based on the location of the plant subject to this permit application, we would not consider Cowhill Lodge to be the closest sensitive receptor. A conservative screening assessment was undertaken by us, using 75 meters as the closet sensitive receptor, the outcome of which is detailed in the “Key Issues” section.
2. We would not routinely set numeric noise emission limits in the environmental permit, except in exceptional circumstances. However, we are satisfied with the conclusions of our assessment as detailed in the “Key Issues” section, and the provisions of the environmental permit conditions.
3. Particulates are not viewed as a parameter of concern for the combustion of natural gas in a plant of this size, and we are satisfied that the emissions from the plant subject to this permit application are unlikely to adversely impact ambient air particulate concentrations.
4. We are satisfied that the stack height is appropriate, based on the outcome of the Applicant’s assessment and our audit, as detailed in the “Key Issues” section.