Natural Resources Wales permitting decisions

New bespoke permit

The application number is: PAN-027839
The permit number is: EPR/DB3399FA.
The Applicant / Operator is: Hochtief (UK) Construction Limited
The Facility is located at: Site Office, Minffordd, LL48 6HP

We have decided to grant the permit for Hochtief Minffordd Medium Combustion Plant – Specified Generators operated by Hochtief (UK) Construction Limited.

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:

- Highlights main issues in the determination
- Summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account

Unless the decision document specifies otherwise we have accepted the applicant's proposals. Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit covers.

Key issues of the decision

Our decision includes but is not limited to the following:

- Air quality
- Specific bespoke permit condition requirements and approaches to making our decision

These will be discussed separately in this decision document.

1 Our decision

This Application is to operate a regulated facility which is subject principally to the Environmental Permitting Regulations 2016 (EPR), Medium Combustion Plant Directive (MCPD) and Specified Generator (SG) regulations.

The permit contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of EPR and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the permit, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard conditions appropriate. This document should be read in conjunction with the application and supporting information and permit.

2 What the permit is for

The permit is for a 15.66MW_{th} Medium Combustion Plant and Specified Generator. The permit, including introductory note provides further detail but briefly the plant comprises of 6 identical generator units, each powered by 2 internal combustion engines powered by Hydrotreated Vegetable oil, a form of biodiesel. Each identical engine is 1.305MW_{th}. The combustion plant is located in a construction compound and is there on a temporary basis (approx. 14 months planned duration) to power a tunnel boring machine for the purpose of installing cabling under the Dwyryd Estuary to provide upgrades and improvements to the National Grid network. The generators will operate continuously, with the number operating being according to power demand, but with a maximum of 5 gen sets opearating at the same time (the 6^{th} is an available backup). The power demand, and therefore number of generaators, will increase as the tunnel boring distance progresses. The genearator does not provide power to the grid, but is there to provide local power for the construction work.

Owing to the temporary nature of the work, the permit limits the operation and emissions to two years from the date of permit issue. The engines/generators selected are very high performance, low emission units, with the permit setting bespoke emission limit values. This reflects additional work undertaken by the operator to minimise local impact at the design stage, primarily because of the close proximity of sensitive ecological receptors as detailed in this document.

3 The Legal Framework

The permit is granted under Regulation 13 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- plant as described by Schedule 25A and Schedule 25B covering the Medium Combustion Plant Directive (MCPD) and Specified Generator (SG) regulations respectively;

- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that this decision is consistent with its general purpose of pursuing the sustainable management of natural resources (SMNR) in relation to Wales, and applying the principles of SMNR. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in granting the Permit a high level of protection will be delivered for the environment and human health through the operation of the Facility in accordance with the permit conditions. NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.

Environment Wales Act 2016 – Biodiversity and resilience of ecosystems duty

Section 6 of the Environment Wales Act 2016 requires that we seek to maintain and enhance biodiversity in the exercise of our functions, and in so doing promote the resilience of ecosystems, in a manner that is consistent with the proper exercise of our functions. NRW is satisfied that in this case we have taken into account and had due regard to this duty in so far as it is consistent with the function of determining an application for an EPR permit.

4 Air Quality

For this kind of regulated activity, the principal emissions are emissions to air. There are no permit conditions for water, land, energy efficiency odour or noise and “best available techniques” (BAT) does not apply.

The next sections of this document explain how we have approached the main issue of assessing the likely impact of air emissions from the facility on human health and the environment and what measures we are requiring to ensure a high level of protection.

We have reviewed the operator's assessment of the environmental risk from the facility. The operator’s screening risk assessment is satisfactory, as supplemented with additional ecological information, and further supported by detailed dispersion modelling (ADMS). The assessments show that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant. Unless stated otherwise, our decision is based primarily on the SCAIL screening tool results, as reference to the more detailed air dispersion report is unnecessary in most instances.

3.1 Assessment of Impact on Air Quality for Human Health

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stack(s) and its impact on local air quality for human health purposes.

The Applicant has assessed the facility's potential emissions to air against the relevant air quality standards, and the potential impact upon human health. These assessments predict the potential effects on local air quality from the Facility's stack emission(s).

The air impact assessments, and the dispersion modelling has been based on the plant operating continuously for 3 gen sets and 2 gen sets at 5880 hours per year at the relevant bespoke emission limit values set in the permit. The operating mode reflects the maximum utilisation, and therefore emission rate that will be required to power the on site equipment.

We are in agreement with this approach. The assumptions underpinning the screening model have been checked and are reasonably precautionary. The way in which the Applicant used the screening tool, its selection of input data, use of appropriate environmental standards for air quality, background data and the assumptions it made have been reviewed by Natural Resources Wales to confirm that the approach used in the Applicant's air impact screening is reasonable. The output from the SCAIL screening has then been used to inform further assessment of health impacts.

The applicant has used the SCAIL modelling (with precautionary input data) to estimate the impact at 10 representative nearby human health receptors. The receptor locations are in/around the village of Minffordd, to the south and east of the emission point and likely to include the most impacted human receptors. The impacts for NOX emissions (taking into account dispersion) are insignificant when compared to relevant annual and hourly limits for ambient air, being below 1% of annual environmental limits, and below 10% of hourly limits. The 1/10% insignificance levels are the standard screening criteria used by NRW for air quality impact assessments, where impact from the source is unlikely to be individually detectable.

The applicant has also provided information for SO2 and PM10 impacts, althouth this is not essential for Fuel Oil powered permit applications of this type. It demonstrates that the impact of dispersed emissions is ≤ 0.1% of the relevant environmental standard, easily confirming its insignificance, and demonstrating why this information is not essential to our determination as negligible impact can be safely assumed.

Further information on the impact screening assessment can be found in the SCAIL tool output provided with the application documents. This includes the long-term and short-term air quality standards used for the assessment, and the individual process contributions calculated. As all impacts are shown to be insignificant, they are not discussed here further.

3.2 Impact on Habitats sites, SSSIs, non-statutory conservation sites

The facility is within the relevant screening distance criteria for protected conservation sites as defined in the AQTAG 14 paper for combustion source screening. Suitable and sufficient Habitats Impact

screening assessments of the application and its potential to affect any of the sites have been carried out as part of the permit determination process as summarised below.

3.3 National Site Network[1]/Ramsar sites

The following National Site Network/Ramsar sites are located within the relevant screening distance from the facility, which is 2.5 km for Gas Oil fueled combustion units:

- Coedydd Derw a Safleoedd Ystlumod Meirion / Meirionnydd Oakwoods and Bat Sites (UK0014789) <100m from engines to SAC
- Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau (UK0013117) ~1km from engines to SAC

An OGN 200 Form 1 (Habitats Regulation Assessment) was completed to assess the potential to affect the National Site Network/Ramsar sites, this is available on the public register.

Assessment of Likely Significant Effect:

The project has been screened for likelihood of significant effects and is considered not likely to have a significant effect on any National Site Network/Ramsar site (As documented in section 3.2 of OGN 200 form 1, or section 5 if applicable). This is because for all pollutants/impacts, with reference to appropriate precautionary site relevant critical levels/loads, the impact of the engines is shown to be insignificant by SCAIL screening, with process contributions being <1% of long term critical levels/loads and/or <10% of short term critical levels. Appropriate assessment is therefore unnecessary.

SSSI Assessment

The following *Sites of Special Scientific Interest (SSSI)* are located within the relevant screening distance from the facility, which is 2.5 km for Gas Oil fueled combustion units:

- **Glaslyn (31 WEK)**
- **Morfa Harlech (31 WNT)**
- **Ysbyty Bron y Garth (31 WTN)**

An Appendix 4 Form was completed to assess the potential to effect the SSSI site, this is available to view on the public register. The assessment concluded the facility is not likely to damage any of the features of the SSSI site. This is because for all pollutants/impacts, with reference to appropriate precautionary site relevant critical levels/loads, the impact of the engines is shown to be insignificant by SCAIL screening, with process contributions being <1% of relevant long term critical levels/loads and/or

[1] National Site Network means the networks of sites in the United Kingdom's territory consisting of such sites as – (a) immediately before exit day formed part of Natura 2000; or (b) at any time on or after exit day are European sites, European marine sites and European offshore marine sites for the purposes of any of the retained transposing regulations.

<10% of short term critical levels. SSSI consent or further assessment is therefore unnecessary as the operation is clearly not likely to damage any protected featues of the SSSI.

It is noted that this screening conclusion differs from the original application information, and is based on further information obtained. A precautionary approach led to the most sensitive feature site relevant critical load of 2 kgN/ha/yr being applied to Glaslyn, SSSI and a process contribution of 1% being calculated which did not screen out, noting also an exceeding N-deposition background. This led to air disipersion modelling work being undertaken, and supplementary ecological advice being obtained by the operator.

When the permit application was received, NRW industry permitting function engaged with the environment team, who confirmed (as per the application) that this critical load was overly precautionary for the parts of the SSSI closest to the engines, and therefore most impacted. It is relevant to the Luronium natans (floating water-plantain) and to oligotrophic water bodies. Neither of these features is present in the most impacted area close to the engines, with the magnitude of impact being evidently insignificant at the greater distances where these features are or may be present. The detailed information provided by the operator has helped to confirm this conclusion. All other pollutants (NOX, SOX, acid deposition) screen out under SCAIL, even those that are not generally required to be fully assessed for Fuel oil MCP-SG applications. Further information is provide in the Appendix 4 form, explaining that screening modelling, with supplementary ecological information, can robustly demonstrate impact of the proposal on SSSIs to be insignificant. .

Non-statutory conservation sites

There are no non-statutory sites within AQTAG screening distance (100m) of the facility. Further assessment is not required, likelihood of significant impact is ruled out.

5 Our approach to other determination issues, and use of Bespoke permit conditions

As described in the non-technical summary of the application, and introductory note of the permit, it is for a temporary MCP-SG to power a tunnel boring machine for a larger construction project. A number of the applicant's consenting requirements were unusual for the MCP regime and required bespoke approach to drafting the permit and/or making our decision. The table below shows our approach to these matters within the standard permit format:

Aspect	Solution in permit / decision making process
Permit is for temporary activity of approximately 14 months duration – MCP permits are usually open-ended	Agreed with operator to limit operations to two years (to allow some contingency over 14 months) – by a bespoke line in the "SG operating techniques" Table S1.2B, and by reducing the emission limit for NOX to zero after two years from permit issue in Table S3.1. Introductory note makes clear our expectation that permit will be surrendered once work is finished. Any extension to

	operating term would require a permit variation / assessment.
Applicant applied for HVO (hydrotreated vegetable oil) as the fuel and assessed as “other liquid fuel” under MCP	We have clarified that we regard HVO that meets EN15940 as being a type of gas oil (diesel). Assessment of SO2 and Particulate Matter emissions can therefore be disregarded. The applicant has included this information, but we regard it as supplementary, as MCP/SG regulations for gas oil only set limits for NOX performance, and information on other pollutants is therefore not required. Similarly, the applicant has correctly screened to up to 10km for protected habitats sites for “other liquid fuel”. Consideration as Gas Oil has allowed screening distances to be appropriately reduced to 2.5km for European sites and SSSI, 100m for non-statutory sites (as per AQTAG 14).
The applicant described an MCP-SG of maximum 13.05 MW_{th}, comprising of 5 identical Gensets (10 engines) with a 6^{th} genset (2 engines) being available on site as a backup.	Legislation requires the maximum installed capacity to be permitted, the air quality impact assessment is for 5 units operating. The permit operating techniquesTable S1.2B therefore consents 6 units, but limits it to a maximum of 5 running at the same time.
Screening assessment “SCAIL” did not immediately demonstrate all emissions to be insignificant and detailed modelling was undertaken, with supplementary ecological advice included in the permit application	After discussion with colleagues in NRW environment team, it was determined that the highest sensitivities (N-deposition of 2 kg/ha/yr for nearby SSSIs) were not applicable to the nearest, most impacted areas to the generator. This is in accordance with ecological advice also ain the application With this justification, the SCAIL results could be amended to show that all impacts were insignificant at the screening stage. It was therefore not necessary to examine the detailed modelling report in full, to expedite a timely determination. It is noted that while the numerical results differ slightly (as would be expected for different assessment methods), the detailed modelling is broadly in accordance with the SCAIL in any case, in describing a small, localised impact from the permitted equipment. There was some disparity in the acid deposition values and the SCAIL results were used to make our consenting decision. The apparent anomaly in the detailed modelling results (higher impact) has not been identified as we are confident in the Screening/SCAIL conclusion.
Staged commissioning of the gen sets (3 once consented, 2 more after approx. 6 months to meet additional power demand as the boring machine progresses)	The permit is granted for all 6 engines (including backup) with further restrictions as documented in Table S1.2B to reflect the maximum screened/modelled emission/impact.

Decision checklist

Aspect considered	Decision
Receipt of application	
Duly making	The Application was accepted as duly made on 08/01/25. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.
Confidential application	The Applicant made no claim for commercial confidentiality.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.

Consultation on the Application	
Consultation on the Application	There was no requirement to carry out a consultation on this application.
Operator	
Control of the facility	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. We are satisfied that the Applicant will be able to operate the facility so as to comply with the conditions included in the permit. This decision was taken in accordance with current guidance on legal operator for environmental permits.
Operator competence	
Relevant convictions	NRW's COLINS Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found The operator satisfies the criteria in RGN 5 on Operator Competence.
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit. The decision was taken in accordance with RGN 5 on Operator Competence.
Management system	The Applicant has stated in the Application that they will implement an Environmental Management System (EMS) that will meet the requirements for an EMS in our "*How to comply with your environmental permit guidance*". The Applicant has an EMS which is certified to ISO14001. We are satisfied that appropriate management systems and management structures will be in place for this facility, and that sufficient resources are available to the Operator to ensure compliance with all the permit conditions.
The facility	
The regulated facility	The regulated facility is subject to EPR because it carries out an activity as described in Schedule 25A and Schedule 25B of EPR: • One combined Tranche B Specified Generator and new Medium Combustion Plant aggregated to <50 MWth at a specified location The Operator has provided the grid reference for the emission points from the plant and the activity is defined in Table S1.1 of the permit.
Annex I of MCPD	The information contained within Annex I of MCPD has been provided by the Operator and incorporated into the permit in Schedule 7.
The site	
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of nature conservation or habitat. We have assessed the application and its potential to affect all known sites of nature

	conservation or habitats identified in the screening as part of the permitting process. We have assessed the Operator's air emissions impact modelling report and consider that emissions will not affect any sites of nature conservation or habitats identified. See Key Issues section above.
Environmental risk assessment	
Environmental risk	For this kind of regulated activity, the principal emissions are emissions to air. We have reviewed the Operator's assessment of the environmental risk from the facility. The Operator's risk assessment is satisfactory. See Key Issues section above.
Operating techniques	
Operating techniques	We have specified the operating techniques and the operator must use the operating techniques specified in Tables S1.2A and Table S1.2B. This includes additional limits on operating hours for some engines, number of engines which may be used at the same time, and period for which the engines may operate (2 years) to reflect conditions described in the application.
Permit conditions	
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.
Emission limits	Emission limit value(s) (ELV) have been set for the following substances: • *NOX: 36 mg/Nm^3 for all 6 engines* Emission limit values are defined at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases and at a standardised O_2 content of 15 % for engines and gas turbines, 6 % for solid fuels and 3 % for all other MCPs. The ELV(s) have been set to be more restrictive than the requirements specified within Schedule 25A and Schedule 25B of EPR and reflect enhanced performance of the engines to be used. This reflects the application by the operator, and has been done to ensure that the impact on nearby habitats is insignificant.
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. The monitoring requirements have been imposed in order to the Operator to demonstrate compliance with the emission limits specified in the permit, as per the monitoring frequency requirements specified within Schedules 25A and Schedule 25B of EPR.

	The Operator will carry out monitoring in accordance with relevant web guidance for MCPs and SGs Monitoring stack emissions: low risk MCPs and specified generators - GOV.UK (www.gov.uk) . These decisions have been made in line with current relevant guidance.
Reporting	We have specified the reporting requirements in Schedule 4 of the permit to ensure data is reported to enable timely review by NRW to ensure compliance with permit conditions.
MCPD/SG charges and subsistence fees	The type of application regarding MCPD/SG will have an associated charge. The MCPD/SG application type and number of plant will also form the basis for ongoing subsistence fees. More information on this can be found in our charging scheme on our website.