

# Natural Resources Wales permitting decisions

## New bespoke permit

**The application number is: PAN-023046**

**The permit number is: EPR/DB3099CT**

**The Operator is: Conrad (Dowlais) Limited**

**The Facility is located at: Dowlais Power Generation Plant, Pengarnddu Industrial Estate,  
Dowlais, Merthyr Tydfil, CF48 2YF**

We have decided to grant the permit for Dowlais Power Generation Plant operated by Conrad (Dowlais) 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 key 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

This 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 The Legal Framework

The permit will be 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; and
- 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.

The permit will regulate 14No. natural gas fuelled engines operated for a maximum of 3,000 hours per year. Five of the engines have a net rated thermal input of 3.46 MW and the remaining nine have a net rated thermal input of 2.99 MW. Each engine will discharge exhaust gases to air via a 7 m high individual stack. The plant's aggregated thermal input is 44.21 MW. The purpose of the plant is to generate electricity to supply to the National Grid at times when demand for electricity outstrips capacity and during power outages and interruptions. The engines are classed as 'existing' plant as defined in Schedule 25A of EPR and as Tranche A specified generators as defined in Schedule 25B of EPR.

The site is located in Pengarnddu Industrial Estate, Dowlais, Merthyr Tydfil, and is surrounded by mixed use commercial and industrial units.

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.

## **3 Air Quality**

For this kind of regulated activity, the principal emissions are emissions to air. There are no permit conditions for water, land, odour or noise.

The next sections of this document explain how we have approached the critical 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 risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant.

### **3.1 Assessment of Impact on Air Quality**

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stacks and its impact on local air quality.

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 emissions.

The air impact assessments, and the dispersion modelling has been based on the plant operating continuously at the relevant long-term or short-term emission limit values, i.e. the maximum permitted emission rate. We are in agreement with this approach. The assumptions underpinning the model have been checked and are reasonably precautionary. The output from the model has then been used to inform further assessment of health impacts.

The applicant has calculated process contributions (PC) at locations within the immediate vicinity and all identified sensitive receptor locations. The modelling results for NO<sub>x</sub> will be discussed separately below.

### **Oxides of nitrogen (NO<sub>x</sub>)**

A long term critical level of 40 µg/m<sup>3</sup> (annual) and short term critical level of 200 µg/m<sup>3</sup> (hourly) was assumed for NO<sub>x</sub>. At all sensitive receptor locations the maximum predicted long-term PC was <1 % of the long-term critical level, with the exception of two receptors. However, the process contributions at these two receptors, when combined with the background, were still within the 70% significance threshold. Therefore in accordance with NRW guidance the long-term impacts from NO<sub>x</sub> can be considered as insignificant. In addition, this is a conservative assessment as the plant is existing and therefore, the process contribution already forms part of the background calculation, and has effectively been 'double counted'. At all sensitive receptor locations the maximum predicted short-term PC was <10 % of the short-term critical level. Therefore in accordance with NRW guidance the short-term impacts from NO<sub>x</sub> can be considered insignificant.

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

The facility is not located within the relevant screening distance criteria for protected conservation sites, as determined using the screening distances listed in the AQTAG 14 guidance document, which NRW has adopted.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Duly making	The Application was accepted as duly made on 21/09/2023. 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.
Requests for information	<p>Further information was requested by way of a Schedule 5 Notice requiring confirmation of the net rated thermal input of the engines. The Schedule 5 Notice was sent on 28/12/2023 with a response date of 15/01/2024. The Applicant's response to the Schedule 5 Notice was provided on 05/01/2024. The additional information supplied satisfied the requirements of the Schedule 5 notice issued on 28/12/2023.</p> <p>A copy of the information notice and e-mails requesting further information were placed on our public register as were the responses when received.</p>
<b>Operator</b>	
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.
<b>Operator competence</b>	
Relevant convictions	NRW's COLINS Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found/relevant convictions were found and declared in the application.

	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	<p>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 <i>"How to comply with your environmental permit guidance"</i>.</p> <p>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.</p>
<b>The facility</b>	
The regulated facility	<p>The regulated facility is subject to EPR because it carries out an activity as described in Schedule 25A and Schedule 25B of EPR:</p> <ul style="list-style-type: none"> <li>One combined Tranche B Specified Generator/existing Medium Combustion Plant aggregated to &lt;50MWth at a specified location</li> </ul> <p>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.</p>
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.
<b>The site</b>	
Biodiversity, heritage, landscape and nature conservation	<p>The application is not within the relevant distance criteria of a site of nature conservation or habitat.</p> <p>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.</p> <p>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.</p>
<b>Environmental risk assessment</b>	
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.
<b>Operating techniques</b>	
Operating techniques	We have specified the operating techniques and the operator must use the operating techniques specified in Table S1.2.
<b>Permit conditions</b>	

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	<p>Emission limit value(s) (ELV) have been set for the following substances:</p> <ul style="list-style-type: none"> <li>190 mg/Nm<sup>3</sup> (oxides of nitrogen, NO<sub>x</sub>)</li> </ul> <p>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<sub>2</sub> content of 15 % for engines and gas turbines, 6 % for solid fuels and 3 % for all other MCPs.</p> <p>The ELV(s) have been set in line with the requirements specified within Schedule 25A and/or Schedule 25B of EPR.</p>
Monitoring	<p>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.</p> <p>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 ELV and monitoring frequency requirements specified within Schedules 25A and Schedule 25B of EPR.</p> <p>The Operator will carry out monitoring in accordance with the relevant MCERTS methods.</p> <p>These decisions have been made in line with current relevant guidance including TGN M5 and <a href="https://www.gov.uk/guidance/monitoring-stack-emissions-low-risk-mcps-and-specified-generators">Monitoring stack emissions: low risk MCPs and specified generators - GOV.UK (www.gov.uk)</a></p>
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.