

Notice of request for more information
Environmental Permitting (England and Wales)
Regulations 2016

Notice requiring further information

To: c/o Mr D R Gething (Company Secretary)
Uniper UK Ltd
Compton House
2300 The Crescent
Birmingham Business Park
Birmingham
B37 7YE

Application number: PAN-031638

Natural Resources Wales, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit, duly made on 24 March 2026. The information requested should be sent to the following address by **17 July 2026**.

Information should be sent to:

Anna Griffiths
Permitting Service
Natural Resources Wales
Crown Buildings
Cathays Park
Cardiff
CF10 3NQ

Name	Date
<i>A. M. Griffiths</i>	16/06/2026

Anna Griffiths, Senior Specialist Advisor - Installations and RSR Permitting
Authorised on behalf of Natural Resources Wales

Schedule

The following information is required in order to determine the permit application for Connah's Quay Low Carbon Power Station.

Where we have asked for reports to be updated, please resubmit the updated report in its entirety with changes identified. This will assist the reader and aid transparency by removing the need to revisit previous document versions.

1. Air Quality Impact Assessment and Modelling

1.1 Emergency Diesel Generators 5 x 6.25 MWth

The Environmental Permit Application Volume 3 Air Quality Assessment and associated modelling files do not include any predicted emission concentrations for the 5 x 6.25 MWth emergency diesel generators.

Please explain the testing frequency and duration for the emergency generators and the proposed testing (and operating) regime (e.g. one engine at a time, all engines tested at the same time etc.)

Update the air quality impact assessment and modelling to ensure that the estimated contribution of emissions to air from the generator testing and operating regime is included. This is required so that the overall impact of proposed site emissions can be assessed.

1.2 Amine Solvent Environmental Assessment Levels (EALs)

- (i) The air quality assessment is supported by document "Annex F – Feed 1 Contractor Supporting Information for the Assessment of Amines and Amine Degradation Products" This document explains that the FEED 1 contractor proposes to use an Amine (Amine 1) called 2-amino-2-methyl-1-propanol (AMP) (CAS No. 124-68-5). There is no published Environmental Assessment Level (EAL) for AMP, and the consultant has used the EAL for Monoethanol Amine (MEA) (CAS No. 141-43-5). The justification for this in Section 2.1.3 of the document indicates that the calculated AMP EAL is higher than the published MEA EAL.

"Please confirm if the AMP EAL in the Annex F document was calculated using the Tolerable Concentrations In Air method detailed in the Environment Agency's *Methodology for the scientific derivation of environmental assessment levels*" as referenced in the Environment Agency Air Emissions Risk Assessment for your Environmental Permit webpage.

If the above Environment Agency method has been used, please provide a sufficiently detailed explanation of how you have derived the AMP EAL (as required by the guidance) to enable an audit of the value proposed. Otherwise please propose an EAL for AMP in accordance with this guidance, also with sufficiently detailed explanation of derivation to enable verification of the value used”.

Please also provide further justification on the use of the MEA EAL as a surrogate for assessing Amine 1 process contributions, in terms of chemical structure and similarity. Please outline if other surrogates were considered and why MEA is the most appropriate.

- (ii) The Annex F document contains Table 2 – “*FEED 1 Contractor Solvent Degradation Products*”. The table includes four possible amine degradation products, specifically:
- Methylamine (MA) (CAS No. 74-89-5)
 - Dimethylamine (DMA) (CAS No. 124-40-3)
 - Diethylamine (DiEA) (CAS No. 109-89-7)
 - Ethylamine (EA) (CAS No. 75-04-7)

These individual amine degradation products have not been assessed against individual EALs. Please therefore provide an assessment of these four amine degradation products against their associated EAL where available. Where there is no published EAL, one should be derived using the Environment Agency’s methodology mentioned above. A full written justification shall be provided if these four amine degradation products are not included in the assessment.

- (iii) Table 5-6 of the Environmental Permit Application Volume 3 Air Quality Assessment presents the “Predicted Process Contribution 1-hour Maximum Total Amines Concentrations (assessed against ES based on NDMA (CAS No. 62-75-9)) for the proposed Abated FEED 1 Scenario”. Although the title of the table refers to the N-nitrosodimethylamine (NDMA) EAL, this does not match the information presented in the table. The Environment Agency EAL for NDMA is 2 ng/m³ (annual mean), whereas the table indicates that the predicted process contributions have been assessed against an environmental standard of 400 µg/m³.

Please provide written clarification of how the table should be interpreted or provide an amended table if necessary.

- (iv) The Environmental Permit Application Volume 3 Air Quality Assessment contains Tables 5.8 and 5.20. Table 5.8 presents the

Predicted Process Contribution Annual Mean Total N-Amines Concentrations (assessed against ES based on NDMA) for the proposed Abated FEED 1 Scenario. Table 5-20 presents the Predicted Process Contribution Annual Mean N-Amines Concentrations (assessed against ES based on NDMA) for the proposed Abated FEED 2 Scenario.

Please confirm if the results presented in these tables include both direct and indirect N-amine emissions, as our check modelling predicts higher N-amine contributions.

1.3 Assessment of cumulative impact of amines on human health

The Environmental Permit Application Volume 3 Air Quality Assessment, Annex D explains that a cumulative assessment has been conducted both considering background air quality data for the area and emission sources that are yet to operate. The cumulative assessment against human health environmental standards is presented for amines and N-amines. At the time of submission, information for some of the proposed developments identified within scope of the assessment was not available (e.g. ID 38: Enfinium Parc Adfer ERF Carbon Capture, SCO/000970/23). However, we are now aware of several active applications for EPR Environmental Permits, which may also be associated with amine emissions to air.

Please update the cumulative assessment for amines and associated degradation products N-amines to include the following for Feed 1 and Feed 2:

- PAN-026621 Castle Cement Limited – emissions related to this application to add a carbon capture plant to the permit;
- PAN-030272 Enfinium Parc Adfer Operations Limited – emissions related to this application to add a carbon capture plant to the permit; and
- PAN-033018 Knauf Insulation Limited – application for a new rock mineral wool installation.

2. Ecological Receptors

2.1 Halkyn Mountain (Special Area of Conservation)

Ecological Receptors OE18 (Halkyn Mountain SAC, SSSI) and OE28 (Herward Smithy SSSI) have been selected as the modelling points representative of the overall Halkyn Mountain SAC. Receptor OE18 is located approximately 10.3km to the northwest of the proposed installation, whilst receptor OE28 is located approximately 7.9km to the northwest. However, the closest point of the SAC to the proposed installation is located just under 6km to the southwest.

This eastern portion of the SAC contains features that are sensitive to the

pollutants being assessed. Therefore, please either:

- Provide justification to explain why the features at receptors OE18 and OE28 can be considered to be the most precautionary of the entire SAC;

Or

- update and resubmit the Air Quality Assessment report (and associated modelling files) to ensure that the most sensitive features and / or those which may be exposed to the highest predicted pollutant concentrations at the SAC are represented.

2.2 Sites of Special Scientific Interest (SSSIs)

Glaswelltiroedd Eryrys (Eryrys Grasslands) SSSI is identified on the plan of ecological receptors provided (“CQ_EPA_Fig6...0119_01.pdf”) but is not included as a modelled receptor in the “Environmental Permit Application Volume 3 Air Quality Assessment” and associated modelling files. Please update the air quality assessment and associated modelling files to include this receptor for completeness.

2.3 Non-statutory sites habitats screen

National Nature Reserves, Local Nature Reserves, Local Wildlife Sites (SINCS), and Ancient woodland are defined as non-statutory protected sites for the purposes of environmental permitting. There are no National Nature Reserves or Local Nature Reserves within the 2km screening distance used. However, there are 3 x Local Wildlife Sites and 17 x Ancient Woodlands within this radius.

The Local Wildlife Sites are:

- Top-y-Fron Dingle and Kelsteron Brook
- Leadbrook Wood
- Cheshire Farm Wood

These have been identified on “CQ_EPA_Fig6...0119_01.pdf” but are not listed as modelled receptors in the “Environmental Permit Application Volume 3 Air Quality Assessment” and associated modelling files.

Also, none of the 17 x Ancient Woodlands within 2km of the proposed installation have been included as modelled receptors in the “Environmental Permit Application Volume 3 Air Quality Assessment” and associated modelling files. The only Ancient Woodland(s) identified in Table 3.5 of the Air Quality Assessment are located approximately 3.6 km from the proposed installation stacks which is outside the screening radius for this type of site.

Please update and resubmit the Air Quality Assessment report and associated modelling files to ensure that the most impacted Local Wildlife Sites and Ancient Woodlands within 2km of the proposed installation are assessed.

3. European Habitats Sites – In-Combination Assessment

The Environmental Permit Application Volume 3 Air Quality Assessment, Annex D presents an assessment of the predicted cumulative impacts of pollutant species from other “plans or projects” that may act in-combination with the proposed installation at the ecological sites identified within a 15km screening radius.

The Annex D assessment considers the following “plans or projects” whose emissions may combine with those from the proposed installation to cause a potential impact at the habitats sites:

- Shotton Paper Mill
- Padeswood Cement Works
- New Paper Processing Mill.

However, we are aware of several other environmental permit applications for developments in proximity to the proposed installation which must be included in the in-combination assessment. On this basis, please update and resubmit the air quality assessment report and associated modelling files to include a full in-combination assessment for the ecological features located at all European Habitats sites (i.e. SAC, SPA and Ramsars) identified within the 15km screening distance of the proposed installation and potentially also impacted by aerial emissions in the same area from other projects with reference to their own screening distances.

The in-combination assessment shall consider the Critical Levels (CLe) for:

- nitrogen oxides expressed as nitrogen dioxide (annual mean),
- nitrogen oxides expressed as nitrogen dioxide (daily mean), and
- ammonia (annual mean).

The in-combination assessment must also consider the relevant Critical Loads (CLo) for nutrient nitrogen deposition and acid deposition. The CLo’s for both are expressed as annual means.

The in-combination assessment shall include all modelled process contributions (PCs) that ‘screen out’ as insignificant (i.e. they are less than 1% or 10% of the corresponding critical levels / loads) and all modelled Predicted Environmental Concentrations (PECs), which though not adverse on their own, could be significant when considered in combination with the effects of other plans or projects.

The permit applications which need to be included are listed below with their NRW “PAN” numbers which enable them to be searched on our online public register at this [link](#). You will need to locate the associated Air Quality Impact Assessments for these applications (some of which have already been included in your analysis):

- PAN-021584 - Industrie Cartarie Tronchetti UK Limited - emissions related to this application for Phases 1 and 2 of the development only. (The site has not yet been constructed, and so emissions are not considered to form part of the background concentration);
- PAN-026621 Castle Cement Limited – emissions related to this application to add a carbon capture plant to the permit;
- PAN-029803 Shotton Mill Limited – emissions related to this application to convert the site to the production of containerboard and tissue paper;
- PAN-028894 Deeside SPV Limited – emissions related to this application for a new anaerobic digestion plant permit;
- PAN-028461 Deeside Power UK Limited – emissions related to this application to convert the operation from a baseload power plant to a peaking power plant
- PAN-030272 Enfinium Parc Adfer Operations Limited – emissions related to this application to add a carbon capture plant to the permit; and
- PAN-033018 Knauf Insulation Limited – application for a new rock mineral wool installation.

You shall also determine whether there any other plans or projects (within a 15km radius of the proposed Connah’s Quay Low Carbon Power Station) that may be relevant, such as other applications for planning permission with an air quality / nitrogen emission potential (i.e. same pollutants modelled as for the proposed installation).

4. Noise Impact Assessment & Modelling

The Environmental Permit Application Volume 3, Appendix I: Noise Impact Assessment (March 2026) and associated modelling files do not include any predicted sound levels for the 5 x 6.25 MWth emergency diesel generators. Please update the Noise Impact Assessment and Modelling to ensure that the predicted sound contribution from the generator testing and reasonable worst case operating regime is included. This is required so that the overall impact of proposed site noise levels can be assessed.

5. Black-start Generation Plant under Grid Code Requirement GC0156

We are aware that the National Energy System Operator (NESO) Grid Code modification GC0156 requires certain energy generation sites to provide sufficient back up generation capability for a minimum of 72 hours. The purpose of this requirement is to keep power stations operationally ready in the event of a partial or total shutdown of the electricity network. We understand that this is a

mandatory requirement that must be met by 31st December 2026.

In view of this, please explain how this capability will be provided at the proposed installation and specifically if it will be achieved by using the auxiliary boiler and / or 5 x emergency diesel generators (item 1.1 above) or by different means. If it will be achieved via the emergency diesel generators, this may be an example of a reasonable worst case operating scenario that is considered under items 1.1 and 4 above. If the requirement will be met by different means, the contribution to air quality impact and sound levels at sensitive receptors must be included in the respective modelling reports and associated files.

End of Schedule