

# Notice of variation and consolidation with introductory note

Environmental Permitting (England & Wales) Regulations 2016

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Uniper UK Limited

Connah's Quay Power Station  
Kelsterton Road  
Connah's Quay  
Deeside  
Flintshire  
CH5 4BP

Variation application number

EPR/NP3037AF/V005

Permit number

EPR/NP3037AF

# Connah's Quay Power Station

## Permit number EPR/NP3037AF

### Introductory note

#### **This introductory note does not form a part of the notice.**

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit. Schedule 1 of the notice specifies that all the conditions of the permit have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made.

We have reviewed the permit for this installation against the revised BAT Conclusions for the Large Combustion Plant (LCP) sector published on 17 August 2017 and Refining of Mineral Oil and Gas published on 9 October 2014. This variation incorporates the changes required by the Industrial Emissions Directive (IED) following a statutory review of permits in the LCP sector. These include the amendment of the wording of several permit conditions relating to notifications, changes to emission limits and monitoring requirements and also includes the addition of an improvement condition (IC26) relating to Black Start Operation. The interpretation section of the permit has also been updated and the opportunity has been taken to consolidate the original permit and subsequent variations.

We have included three improvement conditions (IC26, IC27 and IC28) and pre-operational condition PO6. IC26 requires the operator to produce a black start response plan. IC27 and PO6 have been included due to the trial of the Ambient Air Injection (AAI) system on Unit 4 as requested by the operator. IC28 requires the operator to review emissions of SO<sub>2</sub> from the thermal oxidiser (emission point A11).

The Operator chose to operate the LCP under the Transitional National Plan (TNP) compliance route. The TNP ends on 30 June 2020, after which the emission limits set out in Chapter III of IED will be applicable to the plant. These have been included in Schedule 3(a). We are satisfied that the operator will be compliant with the published BAT conclusions which will apply from 17 August 2021.

The rest of the installation is unchanged and continues to be operated as follows:

The Connah's Quay Power Station installation is a gas-fired power station consisting of a gas treatment plant and four Combined Cycle Gas Turbines (CCGTs) each with a thermal input of 651MW. For the four single shaft (rigidly coupled gas turbine, steam turbine and generator) combined cycle power units, each gas turbine exhausts directly to a heat recovery steam generator (HRSG) - or boiler, which supplies a steam turbine.

The gas treatment plant treats the gas to remove moisture, contaminants and drive off nitrogen through chilling to leave methane. The activity is technically connected to the combustion activity. The activity consists of a pre-treatment section with gas metering, molecular sieve absorbers to remove moisture, and a mercury removal vessel to protect the equipment from traces of mercury. The nitrogen rejection unit reduces the nitrogen concentration of the gas to about 5%. The rejected nitrogen is made harmless by passing through a thermal oxidiser. When the molecular sieves are saturated with moisture they are regenerated by heating the rejected nitrogen stream in a natural draught gas fired heater and passing the hot gas back through the molecular sieves. This off-gas is passed through the thermal oxidiser. The gas pressure is then raised by compressors before it enters the gas turbines or the national transmission system.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

#### **Status log of the permit**

<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application EPR/MP3337SH	Duly made 17/03/2006	

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Schedule 4 response (additional response)	Received 26/10/2006	
Supplementary Information requested	20/11/2006	
Supplementary Information received	20/11/2006	
Supplementary Information requested (email)	12/01/2007	
Supplementary Information received (email)	12/01/2007	
Permit determined EPR/MP3337SH	09/02/2007	Original permit issued to E.ON UK plc.
Variation Application EPR/MP3337SH/V002	Duly Made 05/06/2008	
Schedule 5 Request for further information	Sent 14/09/2008	
Further information received	01/09/2008	
Variation EPR/MP3337SH/V002 issued	29/09/2008	
Variation application EPR/MP3337SH/V003	Duly Made 05/12/2008	
Supplementary information requested	10/10/2008	
Supplementary information received	23/10/08	
Supplementary information requested	23/02/2009	
Supplementary information received	27/02/2009	
Variation EPR/MP3337SH/V003 issued	18/03/2009	
Variation application EPR/MP3337SH/V004	Duly Made 09/11/2010	
Variation EPR/MP3337SH/V004	07/12/2010	
Variation application EPR/MP3337SH/V005	Duly Made 27/01/2012	
Schedule 5 Request for further information	Sent 29/02/2012	
Further information received	23/03/2012	
Additional information received	22/05/2012	Assessment of further Chlorite Decay Tests
Schedule 5 Request for further information	Sent 04/07/2012	
Further information received	24/07/2012	
Additional information received	09/08/2012	Dosing systems
Additional information received	17/10/2012	Commissioning Information and Emission Limit Values/Monitoring
Additional Information received	26/10/2012	Various responses
Additional information received	19/11/2012	Timescales for staged commissioning programme

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Variation EPR/MP3337SH/V005 issued	06/12/2012	
Variation determined EPR/MP3337SH/V006	11/03/2013	Environment Agency Initiated Variation, to incorporate Eel Regulations improvement condition
Variation application EPR/MP3337SH/V007	Duly Made 14/01/2013	Application for upgraded combustion system and additional emission point for auxiliary boiler
Variation application EPR/MP3337SH/V007 determined	04/04/2013	Varied permit issued
Variation application EPR/MP3337SH/V008	Duly Made 19/08/2014	Application for replacement of single auxiliary boiler with five new auxiliary boilers, permission to operate in double two shifting mode and additional emission point for Old Rockcliffe surface water drain
Schedule 5 Request for further information	Sent 09/10/2014	Request for revision of elements of the air quality modelling assessment for new auxiliary boilers and double two shifting mode of operation.
Further information received	17/10/2014	Response to queries relating to air quality modelling methodology and provision of risk assessment.
Variation determined EPR/MP3337SH/V008	17/03/2015	Varied permit issued
Application EPR/NP3037AF/T001 (full transfer of permit EPR/MP3337AF)	Duly made 09/07/2015	Application to transfer the permit in full to Uniper UK Limited.
Transfer determined EPR/NP3037AF	12/08/2015	Full transfer of permit issued.
Regulation 60 Notice sent to the Operator	14/11/2014	Issue of a Notice under Regulation 60(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Regulation 60 Notice response	26/03/2015	Response received from the Operator.
Additional information received	30/06/2015	Response to request for further information (RFI) dated 09/06/15.
Additional information received	30/10/2015	Further information received from the Operator.
Variation determined EPR/NP3037AF/V002	30/12/2015	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.
Variation application PAN-000485 (EPR/NP3037AF/V003)	Duly made 12/07/2016	Application to remove noise attenuators from cooling tower fans, change emissions to air reference period and correct errors in emissions to water monitoring requirements.

## Status log of the permit

Description	Date	Comments
Additional information requested	24/08/2016	Modelling data files associated with noise impact assessment requested.
Additional information received	27/09/2016	Noise modelling data files received.
Additional information requested	02/11/2016	Clarification of derived sound power and pressure levels requested.
Additional information received	10/11/2016	Clarification of derived sound power and pressure levels received.
Variation PAN-000485 (EPR/NP3037AF/V003) determined	25/11/2016	Variation issued.
Variation application received EPR/NP3037AF/V004	Duly Made 09/01/2017	Application to change the company's registered office address
Variation determined EPR/NP3037AF/V004	07/02/2017	Variation issued to Uniper UK Limited
LCP Regulation 61 Notice sent to the Operator	09/05/2018	Issue of a Notice under Regulation 61(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit to introduce new Emission Limit Values (ELVs) following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for Large Combustion Plants (LCP).
LCP Regulation 61 Notice response received	22/11/2018	Response received from the Operator
Refining of Mineral Oil and Gas Regulation 61 Notice sent to the Operator	29/03/2019	Issue of a Notice under Regulation 61(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for the Refining of Mineral Oil and Gas.
Refining of Mineral Oil and Gas Regulation 61 Notice response received	22/05/2019	Response received from the Operator
Additional information received	30/08/2019	Response to request for further information on the Operator's LCP Reg 61 response (RFI dated 10/06/2019)
Variation determined EPR/NP3037AF/V005	30/06/2020	Varied and consolidated permit issued in modern condition format to Uniper UK Limited

## Other Part A installation permits relating to this installation

Operator	Permit number	Date of issue
Uniper UK Limited	24/67/10/124/V004 (License to abstract water)	09/09/2015
Uniper UK Limited	EU-ETS: UK-W-IN-13308 (Emissions trading scheme)	

End of introductory note

## Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Natural Resources Body for Wales (“Natural Resources Wales”) in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

**EPR/NP3037AF**

Issued to

**Uniper UK Limited** (“the operator”)

whose registered office is

**Compton House  
2300 The Crescent  
Birmingham Business Park  
Birmingham  
B37 7YE**

company registration number **02796628**

to operate a regulated facility at

**Connah’s Quay Power Station  
Kelsterton Road  
Connah’s Quay  
Deeside  
Flintshire  
CH5 4BP**

to the extent set out in the schedules.

The notice shall take effect from 01/07/2020.

Name	Date
<b>Holly Noble</b>	<b>30/06/2020</b>

Permitting Team Leader – Installations and RSR

Authorised on behalf of Natural Resources Wales

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of a Natural Resources Wales initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.