

Notice of variation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

E.ON UK plc

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

Variation application number
EPR/MP3337SH/V007

Permit number
EPR/MP3337SH

Connah's Quay Power Station

Permit number EPR/MP3337SH

Introductory note

This introductory note does not form a part of the notice

The following notice gives notice of the variation of an environmental permit.

This variation is to allow the installation's Dry Low NO_x (DLN) combustion system to be upgraded to a newer specification. This modification will give environmental and operational benefits including reduced NO_x emissions to air and improved flexibility and reliability of operation.

Emission point "A10" has also been added to Table S4.1 (a) of the permit, as part of this variation. This emission point is associated with the site's 24MW, natural gas fired auxiliary boiler. The operator anticipates that the auxiliary boiler will need to operate more frequently in the future due to changes in energy market conditions. However, we are satisfied that the auxiliary boiler will not make a significant contribution to air emissions from the overall installation when this more frequent mode of operation commences.

The schedules specify the changes made to the original 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		
Description	Date	Comments
Application MP3337SH	Duly Made 17/03/06	
Schedule 4 response (additional information)	Received 26/10/06	
Supplementary Information requested	20/11/06	
Supplementary Information received	20/11/06	
Supplementary Information requested (email)	12/01/07	
Supplementary Information received (email)	12/01/07	
Permit MP3337SH determined	09/02/07	
Variation Application EPR/MP3337SH/V002	Duly Made 05/06/08	
Schedule 5 Request for further information	Sent 14/09/08	
Further information received	01/09/08	
Variation EPR/MP3337SH/V002 issued	29/09/08	
Variation application EPR/MP3337SH/V003	Duly Made 05/12/08	
Supplementary information requested	10/10/08	
Supplementary information received	23/10/08	
Supplementary information requested	23/02/09	
Supplementary information received	27/02/09	
Variation EPR/MP3337SH/V003 issued	18/03/09	
Variation application EPR/MP3337SH/V004	Duly Made 09/11/10	
Variation EPR/MP3337SH/V004 issued	07/12/10	
Variation application EPR/MP3337SH/V005	Duly Made 27/01/12	
Schedule 5 Request for further information	Sent 29/02/12	

Status log of the permit (continued)		
Description	Date	Comments
Further information received	23/03/12	
Additional information received	22/05/12	Assessment of further Chlorite Decay Tests
Schedule 5 Request for further information	Sent 04/07/12	
Further information received	24/07/12	
Additional information received	09/08/12	Dosing systems
Additional information received	17/10/12	Commissioning Information and Emission Limit Values / Monitoring
Additional information received	26/10/12	Various responses
Additional information received	19/11/12	Timescales for staged commissioning programme
Variation EPR/MP3337SH/V005 issued	06/12/12	
Variation determined EPR/MP3337SH/V006	11/03/13	Environment Agency Initiated Variation, to incorporate Eel Regulations improvement condition
Variation application EPR/MP3337SH/V007	Duly Made 14/01/13	Application for upgraded combustion system & additional emission point for auxiliary boiler
Variation application EPR/MP3337SH/V007 determined	04/04/13	Varied permit issued

Other existing Licences/Authorisations/Registrations relating to this site		
Holder	Reference number	Date of issue
EON UK PLC, Westwood Way, Westwood Business Park, Coventry, CV4 8LG	24/67/10/124/E ver 1 (Licence to abstract water)	25/10/1996
EON UK PLC, Westwood Way, Westwood Business Park, Coventry, CV4 8LG	24/67/10/124/E ver 2 (Licence to abstract water)	03/01/2007
EON UK PLC, Connah's Quay Power Station, Kelsterton Road, Connah's Quay , Deeside, Flintshire, CH5 4BP	EU-ETS:GB-EA- ETCO2-0179 (Emissions trading scheme)	

End of introductory note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2010

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 2010 varies

Permit number
EPR/MP3337SH

issued to:
E.ON UK plc (“the operator”)

whose registered office is

Westwood Way
Westwood Business Park
Coventry
CV4 8LG

company registration number **02366970**

to operate a regulated facility at

Kelsterton Road
Connah’s Quay
Deeside
Flintshire
CH5 4BP

to the extent set out in the schedules.

The notice shall take effect from 04/04/2013

Name	Date
David Willey	04/04/2013

Authorised on behalf of Natural Resources Wales

Schedule 1 – conditions to be deleted

None

Schedule 2 – conditions to be amended

The following conditions are amended as a result of the application made by the operator

Table S1.2 shall be amended to:

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Sections 2.1 & 2.2 of the application as well as other sections of the application	06/03/2006 (Received) 17/03/2006 (Duly Made)
Response to Schedule 4 Notice Request issued on 29/09/2006	Response to question 5, 6, 7, 8, 9, 10, 14, 15, 16, 29, detailing process control, 30 detailing emissions limits	26/10/2006
Supplementary Information	Email from Bill Smith at E.ON – Connah’s Quay Power Station dated 12/01/2007	12/01/2007
Supplementary Information	Letter dated 20/11/2006 regarding two-shifting	22/11/2006
Standard Variation Application (EA/EPR/MP3337SH/V003)	Variation application Duly Made 05/06/2008	20/05/2008
Standard Variation further information request	EPR Schedule 5 Variation Further Information request dated 14/09/2008	01/09/2008
Variation Application EPR/MP3337SH/V004	Response to questions in Application Form EPC – Part C	09/11/2010
Standard Variation Application EPR/MP3337SH/V005	Sections 2.1 to 2.6 of the application “Connah’s Quay Power Station Application to Vary Permit MP3337SH – Chlorine Dioxide Dosing System Modification – October 2011.	09/12/2011
Response to Schedule 5 Notice requiring further information	The answer to question 10 of the Schedule 5 Notice (issued 29/02/2012) regarding monitoring methods and standards	23/03/2012
Additional information received	Assessment of further Chlorite Decay Tests	22/05/2012
Response to Schedule 5 Notice requiring further information	Response to Schedule 5 Notice	24/07/2012
Additional information	Information in relation to dosing systems	09/08/2012

Table S1.2 Operating techniques (continued)		
Description	Parts	Date Received
Additional information	Appendix 1 – Additional Commissioning Information:- 1. Cooling tower dosing system description 2. Water commissioning 3. Chemical commissioning 4. Stage 1 of Proposed Chlorine Dioxide Introductory Dosing Plan 5. Stage 2 of Proposed Chlorine Dioxide Introductory Dosing Plan 6. Stage 3 of Proposed Chlorine Dioxide Introductory Dosing Plan Additional information supplied for clarification B5, Monitoring Methods Confirmation	17/10/2012
Additional information	Responses (Points 1 and 2)	26/10/2012
Additional information	Appendix 1 – Timescales (including durations)	19/11/2012
Variation Application EPR/MP3337SH/V007	Section 3.1 of the DLN 2.6+ Upgrade Supporting Document entitled "Connah's Quay Safety and Environmental Management System"	20/12/2012

Table S4.1 (a) shall be amended to:

Note

For the purposes of this Schedule, the following interpretations shall apply:

- For the continuous measurement systems fitted to the LCP release points defined in Table S4.1 the validated hourly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval.
- The 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%.
- The 95% confidence interval for dust releases of a single measured result shall be taken to be 30%
- The 95% confidence interval for carbon monoxide of a single measured result shall be taken to be 10%
- An invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing.
- Any day, in which more than three hourly average values are invalid shall be invalidated.

Table S4.1(a) Point source emissions to air from Gas Turbines and Auxiliary Boiler

Emission point ref. & location	Parameter	Source	Limit (including unit) ^a	Reference period	Monitoring frequency	Monitoring standard or method
Points A1, A2, A3, A4 on site plan in Schedule 2	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Gas turbine fired on natural gas	75mg/m ³	Daily mean of validated hourly averages	Continuous	BS EN 14181 and as agreed in writing with Natural Resources Wales
Points A1, A2, A3, A4 on site plan in Schedule 2	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Gas turbine fired on natural gas	110mg/m ³	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181 and as agreed in writing with Natural Resources Wales
Points A1, A2, A3, A4 on site plan in Schedule 2	Carbon Monoxide	Gas turbine fired on natural gas	30mg/m ³	Daily mean of validated hourly averages	Continuous	BS EN 14181 and as agreed in writing with Natural Resources Wales
Point A10 on site plan in Schedule 2	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Auxiliary Boiler fired on natural gas	No Limit Set	Hourly Average	Annual	BS EN 14792
Point A10 on site plan in Schedule 2	Carbon Monoxide	Auxiliary Boiler fired on natural gas	No Limit Set	Hourly Average	Annual	BS EN 15058

^a – these limits do not apply during start up or shut down

Table S5.1 shall be amended to:

Table S5.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen Parameters as required by condition 3.6.1.	A1, A2, A3, A4, A11	Every 3 months	01/10/08
Carbon Monoxide Parameters as required by condition 3.6.1	A1,A2, A3, A4, A11	Every 3 months	01/10/08
Oxides of nitrogen Parameters as required by condition 3.6.1.	A12	Every 12 months	01/01/08
Carbon Monoxide Parameters as required by condition 3.6.1	A12	Every 12 months	01/01/08
Oxides of nitrogen Parameters as required by condition 3.5.1.	A10	Every 12 months	01/01/13
Carbon Monoxide Parameters as required by condition 3.5.1	A10	Every 12 months	01/01/13
Sulphur dioxide Parameters as required by condition 3.6.1	A11	Every 3 months	01/10/08
Invalidation of Continuous monitoring	A1, A2, A3, A4	Every 3 months	01/10/08
Total Mass Emissions NOx, SO2, particulates (LCPD)	A1, A2, A3, A4	Every 12 months	01/01/08
Flow Parameters as required by condition 3.6.1	W1	Every 3 months	01/10/08
pH maximum Parameters as required by condition 3.6.1	W1, W2	Every 3 months	01/10/08
pH minimum Parameters as required by condition 3.6.1	W1, W2	Every 3 months	01/10/08
Oil (or grease) Parameters as required by condition 3.6.1	W1, W2	Every 3 months	01/10/08
Temperature difference between discharge and receiving waters Parameters as required by condition 3.6.1	W1	Every 3 months	01/10/08

Table S5.1 Reporting of monitoring data (continued)

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Temperature maximum Parameters as required by condition 3.6.1	W1	Every 3 months	01/10/08
Salinity Parameters as required by condition 3.6.1	W1	Every 3 months	01/10/08
Total Residual Oxidant (TRO) Parameters as required by condition 3.6.1	W1	Every 3 months	01/10/08
Residual Chlorine Dioxide Parameters as required by condition 3.5.1	W1, W2	Every 3 months Note 1	01/10/12
Residual Chlorite Ion Parameters as required by condition 3.5.1	W1	Every 3 months Note 1	01/10/12

Note 1 Monthly for the first 3 months of operation.

Table S5.4 shall be amended to:

Table S5.4 Reporting forms

Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air	Form Air – 2 continuous monitoring or other form as agreed in writing by Natural Resources Wales	01/01/2007	Site Inspector	29/09/08
Air	Form Air – 3 continuous measurement systems invalidation log or other form as agreed in writing by Natural Resources Wales	01/01/2007	Site Inspector & Central office	29/09/08
Air	Air - 4- Annual mass emissions reporting or other form as agreed in writing by Natural Resources Wales	01/01/2008	Site Inspector	29/09/08
Air	Form Air 1 or other form as agreed in writing by Natural Resources Wales	01/01/2007	Site Inspector	04/04/13
Water	Form water 1 or other form as agreed in writing by Natural Resources Wales	Note 1	Site Inspector	01/12/12
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	01/01/2007	Site Inspector	29/09/08
Annual Energy Output	Form Air 7 Energy Usage Summary or other form as agreed in writing by Natural Resources Wales	01/01/2007	Site Inspector	29/09/08
Energy Usage (GTP)	Form Energy 1 or other form as agreed in writing by Natural Resources Wales	01/01/2007	Site inspector	29/09/08

Note 1 Upon commissioning of the Chlorine Dioxide cooling water dosing system

Schedule 3 – conditions to be added

None