

Natural Resources Wales permitting decisions

Variation

We have decided to issue the variation for Connah's Quay Power Station operated by E.ON UK plc.

The variation number is EPR/MP3337SH/V008.

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:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation responses

Key issues of the decision

This variation is to allow the power station to operate in double two-shifting mode, and to replace the current, single auxiliary boiler with five new smaller ones. The power station is also at present going through an upgrade programme whereby the existing burners on the four main combined cycle gas turbines (CCGT) are being replaced with new low NO_x burners, which will result in significant reductions in oxides of nitrogen emissions from the CCGTs. This change was agreed through a previous permit variation. At the time of the variation determination burners on two of the four CCGTs had been replaced, and it is planned that the second two will be replaced by November 2015.

The operator has modelled oxides of nitrogen (NO_x), sulphur dioxide (SO₂) and carbon monoxide (CO) emissions from release points for the four main CCGTs and five new auxiliary boilers using ADMS 5 modelling software, to predict ground level concentration associated with the changes to the operating mode and installation of the new auxiliary boilers. As the operator is part-way through a burner upgrade programme, the modelling included four operating scenarios to allow comparison of emissions from double two shifting operating mode and baseload (where the power station operates on a continuous basis), and between the old and new burners. Scenario four represents the final operating mode of double two shifting with the five new auxiliary boilers, with all four CCGTs operating with the new burners. The impacts of emissions on human health and habitats from all four scenarios were considered and assessed; however, as scenario 4 is the final operating scenario, we have concentrated on this assessment in this document.

Biodiversity, Heritage, Landscape and Nature Conservation

As part of their assessment the applicant considered the impact of emissions resulting from the changes proposed in their application on habitats within relevant screening distances of power station. The following European habitats sites (i.e. Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar) are located within 10km of the installation:

- Dee Estuary (SAC, SPA, Ramsar)
- Halkyn Mountain (SAC)
- River Dee and Bala Lake (SAC)
- Deeside and Buckley Newt Sites (SAC)
- Alyn Valley Woods (SAC)

The following Sites of Special Scientific Interest (SSSI) are located within 2km of the installation:

- Dee Estuary / Aber Afon Dyfrdwy
- Shotton Lagoon and Reedbeds
- Afon Dyfrdwy (River Dee)

The following non-statutory local wildlife and conservation sites are located within 2km of the installation:

- Leadbrook Wood (Local Wildlife Site (LWS))
- Top-y-fron Dingle and Kelsterston Brook (LWS)
- Cheshire Farm Wood
- 1 x Ancient and Semi Natural Woodland

European Sites (SAC, SPA, Ramsar)

Critical Levels: long and short term NO_x and long term SO₂

A comparison of pollutant concentrations at European sites as percentages of relevant critical levels for the protection of vegetation and ecosystems is shown in Table 1 below for Scenario 4, which is the final operating scenario. No assessment was made for Carbon Monoxide as there are no critical levels for this pollutant. There are no applicable critical levels for the habitat types found at the River Dee and Bala Lake SAC, which is aquatic in nature and as such no assessment of the impact of emissions from the site was made for this habitat. Lichens that are sensitive to Sulphur Dioxide deposition are found at the Alyn Valley Woods SAC and therefore the lower critical level of 10 µg/m³ was used in the assessment of this site.

	NO _x Annual Mean	NO _x Daily Mean	SO ₂ Annual Mean	SO ₂ Annual Mean – sites with sensitive lichens
Critical Level µg/m ³	30	75	20	10
Dee Estuary (SAC, SPA, Ramsar)	7.6%	59.2%	0.67%	Not applicable to this habitat
Halkyn Mountain (SAC)	0.2%	4.1%	Not applicable to this habitat	0.05%
River Dee and Bala Lake (SAC)	No applicable critical levels for this habitat			
Deeside and Buckley Newt Sites (SAC)	2.2%	16.4%	0.19%	Not applicable to this habitat
Alyn Valley Woods (SAC)	0.3%	3.9%	0.03%	Not applicable to this habitat

Table 1. Pollutant concentrations attributable to the proposed installation (i.e. existing background not included) at European sites as percentages of the relevant critical levels (percentages above the long term 1% and short term 10% insignificance thresholds shown in red).

With the exception of the impact of Oxides of Nitrogen at the Dee Estuary SAC, SPA and Ramsar and the Deeside and Buckley Newt Sites SAC, all long term pollutant concentrations are substantially below the significance threshold of 1% of the critical level. Also, again with the exception of the impact of Oxides of Nitrogen at the Dee Estuary SAC, SPA and Ramsar and the Deeside and Buckley Newt Sites SAC, all short term pollutant concentrations are substantially below the significance threshold of 10% of the critical level. On this basis we proceeded to stage 3 of the habitats assessment process for the Dee Estuary SAC, SPA, Ramsar and Deeside and Buckley Newt Sites SAC.

Stage 3 of the appropriate assessment involves comparing the process contribution (PC) in combination with the long term background NO_x level against the relevant critical level. For long term critical levels, the Predicted Environmental Concentrations (PEC) - which is the PC plus the long term

background - as percentages of the long term critical level for the Dee Estuary SAC, SPA and Ramsar sites and the Deeside and Buckley Newt Sites SAC are 54.2% and 52.5% respectively. As these percentages are significantly below 100% of the critical level we are satisfied that there is unlikely to be an exceedence of this standard at these sites.

For short term critical levels, stage 3 of the appropriate assessment defines the PEC as the PC plus two times the long term background level. However, for power stations emitting from elevated stacks, the background concentration during conditions likely to drive high process contributions has been demonstrated to typically correspond to the annual mean. For this reason the PEC has been assessed using the unadjusted background concentration following the approach agreed between the Environment Agency and power station operators for Power Station Air Quality Strategy Management Plans (Methodology for the Use and Interpretation of Monitoring and Modelling for Air Quality Strategy Management Plans, Issue 5, January 2002).

The PEC as a percentage of the short term critical levels for the Dee Estuary SAC, SPA, Ramsar sites and the Deeside and Buckley Newt Sites SAC was 77.8% and 36.5% respectively. As these percentages are below 100% of the critical level we are satisfied that there is unlikely to be an exceedence of this standard.

Critical Loads: Nitrogen and Acid Deposition

The applicant also considered the impact of nitrogen and acid deposition on these habitats by comparing the process contribution (PC) as a percentage of the minimum critical load identified in the Air Pollution Information System (APIS) for the most sensitive habitat type with the 1% insignificance threshold. The results of this comparison are presented in Tables 2 and 3 below. There are no applicable critical loads for the habitats types found at the River Dee and Bala Lake SAC, which is aquatic in nature and as such no assessment of the impact of emissions from the site was made for this habitat. There are also no habitat types within the Dee Estuary SPA and Ramsar sites that are sensitive to acid deposition; therefore only the Dee Estuary SAC is considered in Table 3.

	Dee Estuary (SAC)	Dee Estuary (SPA, Ramsar)	Halkyn Mountain (SAC)	Deeside and Buckley Newt Sites (SAC)	Alyn Valley Woods (SAC)
Critical Load (CLo): kg N/ha/yr	8	20	10	10	15
PC / CLo (%age)	4.09%	1.64%	0.1%	1.83%	0.15%

Table 2. Pollutant concentrations attributable to the proposed installation (i.e. existing background not included) at European sites as percentages of the relevant nitrogen deposition critical loads (percentages above the 1% insignificance criteria shown in red).

	Dee Estuary (SAC)	Halkyn Mountain (SAC)	Deeside and Buckley Newt Sites (SAC)	Alyn Valley Woods (SAC)
Critical Load (CLO): minCL _{max} N	4.856	0.576	1.722	1.863
PC / CLO (%)	0.8%	0.21%	1.23%	0.14%

Table 3. Pollutant concentrations attributable to the proposed installation (i.e. existing background not included) at European sites as percentages of the acid deposition relevant critical loads (percentages above the 1% insignificance criteria shown in red).

For nitrogen deposition (Table 2), the process contribution (PC) for the Halkyn Mountain and Alyn Valley Woods SACs is significantly below the 1% insignificance threshold. However the PCs at the remaining sites are above the 1% insignificance threshold; on this basis we proceeded to stage 3 of the habitats assessment, which is discussed in more detail below.

The PEC, which is the PC plus the long term background, as a percentage of the nitrogen deposition minimum critical load for these sites is as follows:

- Dee Estuary (SPA, Ramsar) – 77%
- Dee Estuary (SAC) – 193%
- Deeside and Buckley Newt Sites (SAC) – 383%

As the PEC for the Dee Estuary SPA and Ramsar sites is below 100% of the critical load, we are satisfied that there is unlikely to be an exceedence of this standard.

The PECs for the other two sites exceeded 100% of the minimum critical loads. However it should be noted that the background concentrations of nitrogen deposition at the Dee Estuary SAC are 151.2% and 380.8% of the maximum critical load.

For acid deposition (Table 3), the process contribution (PC) for all sites with the exception of the Deeside and Buckley Newt Sites SAC were significantly below the 1% insignificance threshold. On this basis, therefore, we proceeded to stage 3 of the habitats assessment for the Deeside and Buckley Newt Sites SAC, which is discussed in more detail below.

The PEC, which is the PC plus the long term background, as a percentage of the acid deposition critical load for the Deeside and Buckley Newt Sites SAC is 165%. However, it should be noted that the background concentration at this site is 163.2% of the critical load and therefore is already significantly in excess of the critical load. We therefore consider that the contribution from the process in comparison is negligible.

The applicant's habitats assessment was reviewed by the conservation body in Wales, who agreed with the assessment's conclusions; that there would be no likely significant effect on the interest features of the protected sites.

We have completed Appendices 11 and 12 forms and retained this as a record of the assessment, in accordance with our guidance.

Sites of Special Scientific Interest (SSSI)

Critical Loads: Nitrogen and Acid Deposition

The applicant considered the impact of nitrogen and acid deposition on these habitats by comparing the process contribution (PC) as a percentage of the minimum critical load identified in APIS for the most sensitive habitat type with the 1% insignificance criteria. The results of this comparison are presented in Tables 4 and 5 below.

	Dee Estuary	River Dee	Shotton Lagoons and Reedbeds
Critical Load (CLo): kg N/ha/yr	8	5	10
PC / CLo (%age)	5.88%	9.24%	1.7%

Table 4. Pollutant concentrations attributable to the proposed installation (i.e. existing background not included) at SSSIs as percentages of the relevant nitrogen deposition critical loads (percentages above the 1% insignificance criteria shown in red).

	Dee Estuary	River Dee	Shotton Lagoons and Reedbeds
Critical Load (CLo): minCL _{max} N	1.053	1.075	1.298
PC / CLo (%age)	3.66%	4.83%	1.53%

Table 5. Pollutant concentrations attributable to the proposed installation (i.e. existing background not included) at SSSIs as percentages of the relevant acid deposition critical loads (percentages above the 1% insignificance criteria shown in red).

The 1% insignificance criteria was exceeded for all sites for both nitrogen and acid deposition. On this basis we proceeded to stage 3 of the habitats assessment for these sites, which is discussed in more detail below.

Stage 3 of the appropriate assessment involves comparing the process contribution (PC) in combination with the background load against the relevant minimum critical load. Tables 6 and 7 below show these calculations

	Dee Estuary	River Dee	Shotton Lagoons and Reedbeds
Critical Load (CLo): kg N/ha/yr	8	5	10
Background concentration kg N/ha/yr	15.12	15.12	15.12
PeC / CLo (%age)	193%	510%	153%

Table 6. Predicted environmental concentrations at SSSIs as percentages of the relevant nitrogen deposition critical loads (percentages above the 100% no exceedence criteria shown in red).

	Dee Estuary	River Dee	Shotton Lagoons and Reedbeds
Critical Load (CLo): minCL _{max} N	1.053	1.075	1.298
Background concentration minCL _{max} N	1.19	1.19	1.19
PEC / CLo (%age)	117%	181%	93%

Table 7. Predicted environmental concentrations at SSSIs as percentages of the relevant acid deposition critical loads (percentages above the 100% no exceedence criteria shown in red).

As the PEC for Shotton Lagoons and Reedbeds SSSI is below 100% of the critical load we are satisfied that there is unlikely to be an exceedence of this standard at this site. For all other sites the PECs are in excess of 100% of the relevant critical loads. However, in all cases, the background concentration is already in excess of the critical load; we therefore consider that the PC is negligible in comparison.

The applicant's habitats assessment was reviewed by the conservation body in Wales, who agreed with the assessment's conclusions; that the changes are not likely to damage any of the special interest features of the SSSIs.

We have completed Appendix 4 forms and retained this as a record of the assessment, in accordance with our guidance.

Local Wildlife Sites and Ancient Woodlands

Critical Levels: long and short term NO_x and long term SO₂

The applicant compared the process contribution (PC) with the critical levels for NO₂ for those sites within 2km of the power station. For scenario 4 the process contribution was above the 1% insignificance criteria for long-term (annual mean) emissions and above the 10% insignificance criteria for short-term (daily mean) emissions. Consequently the assessment proceeded to the next stage, whereby the predicted environmental contribution (PEC) is compared to the critical level. For both long- and short-term emissions the PEC is significantly below 100% of the critical levels. We are therefore satisfied that proposed changes will not cause significant pollution at these sites.

The applicant also compared the PC with the long-term (annual mean) for SO₂ for those sites within 2km of the power station. For scenario 4 the PC was below the 1% insignificance criteria for long-term (annual mean) emissions and therefore screens out.

Critical Loads: Nitrogen and Acid Deposition

The applicant compared the process contribution (PC) with the critical load for nitrogen deposition for those sites within 2km of the power station. For scenario 4 the process contribution, at 2% of the critical load, was above the 1% insignificance criteria for nitrogen deposition. Consequently the assessment proceeded to the next stage, whereby the predicted environmental contribution (PEC) is compared to the critical load. The PEC as a percentage of the critical load is significantly in excess of 100%; however, this is because the background concentration is already significantly in excess of the critical load. The PC in comparison is very low and therefore we consider that the proposed changes will not cause significant pollution at these sites.

The applicant also compared the PC with the critical load of acid deposition for those sites within 2km of the power station. For scenario 4 the PC was below the 1% insignificance criteria for acid deposition and therefore screens out.

Biodiversity, Heritage, Landscape and Nature Conservation: Conclusion

As mentioned above, it is important to note that the power station is halfway through a programme of upgrades of the burners on the four main CCGT units, and this, together with the installation of the new auxiliary boilers, will result in significant reductions in emissions when completed. The double two shifting pattern of operation will result in slightly elevated long-term emissions when compared with the baseload mode of operation; however, this increase is more than offset by the decrease in emissions associated with the new burners. As a worst-case scenario the applicant has assumed continuous double two-shifting operation in the modelling exercise; in reality operation will utilise a mixture of baseload and double two-shifting modes, which means that actual emissions are likely to be much lower than predicted.

In addition, the assessment presented by the applicant takes a conservative approach which represent the worst-case scenario. This includes taking the following approach:

- Using the worst case meteorological year in the modelling;
- Using the lowest (most stringent) end of the critical load range;
- The highest deposition over the entire site has been used for the assessment
- Assuming that all nitrogen emissions are in the form NO₂. Emissions of NO_x from gas-fired power stations are primarily in the form of NO (~80%) which has a negligible dry deposition rate. Within ten kilometres of the plant the maximum conversion from NO to NO₂ is likely to be 75% and will be less than this closer to the stack.

We expect that background levels of NO_x and SO_x are set to fall over the medium to long term due to legislative changes that will lead to a significant reduction in exhaust gases released from power stations and other major emitters. This will apply to Connah's Quay Power Station itself and other industries located in the area. Adverse effects will be avoided / mitigated by these legal requirements and the relatively small contribution to site eutrophication, from this emission.

Environmental Risk

As scenario 4 represents the final operating mode of the power station, the environmental risk from this scenario has been focussed on in this section.

Nitrogen Dioxide (NO₂)

The modelling carried out by the applicant shows that the maximum predicted process contribution (PC) for annual NO₂ is 7.6 µg/m³. This equates to 19% of the 40 µg/m³ Air Quality Standard (AQS) for NO₂ (expressed as annual mean) and as such is above the H1 insignificance criteria of 1%. The maximum predicted PC for short term NO₂ (99.79th %ile of hourly mean concentrations) is <0.1 µg/m³, which is below the 10% insignificance criteria.

For long term NO₂ the applicant has proceeded to the next stage of H1, where the PC is examined in more detail in relation to existing background concentrations of NO₂. In order to make this assessment, the PC has been added to the ambient background concentration of 30 µg/m³ in order to derive the Predicted Environmental Concentration (PEC).

The PEC for annual NO₂ is therefore:

$$30 \mu\text{g}/\text{m}^3 \text{ (background concentration)} + 7.6 \mu\text{g}/\text{m}^3 = \mathbf{37.6 \mu\text{g}/\text{m}^3}$$

This equates to 94% of the 40 µg/m³ AQS for annual NO₂. On this basis we are satisfied that there is unlikely to be an exceedence of the annual mean NO₂ AQS.

Sulphur Dioxide (SO₂)

The modelling carried out by the applicant shows that the maximum predicted process contribution(PC) for annual SO₂ is 0.2 µg/m³. This equates to <1% of the 50 µg/m³ Air Quality Standard (AQS) for SO₂ (expressed as annual mean) which is below the H1 insignificance criteria of 1% and therefore screens out.

For short-term SO₂ the maximum predicted PC are shown in Table 8 below.

AQS	AQS Objective (µg/m ³)	PC (µg/m ³)	PC / AQS (%age)
99.9 th %ile of 15 minute mean concentrations	266	10.4	4%
99.73 th %ile of hourly mean concentrations	350	9.0	3%
99.18 th %ile of daily mean concentrations	125	3.2	3%

Table 8. Pollutant concentrations attributable to the proposed installation (i.e. existing background not included) at the site boundary as percentages of the relevant short-term sulphur dioxide air quality objectives (percentages above the 10% insignificance criteria shown in red).

All PCs as percentages of the relevant SO₂ short-term AQS objectives are below the H1 10% insignificance criteria and therefore screen out.

Carbon Monoxide

The modelling carried out by the applicant shows that the maximum predicted PC for short term CO (maximum running 8 hour mean) is 2542.6 µg/m³, which, at 25% of the AQS of 10000 µg/m³, is above 10% insignificance criteria.

The applicant has proceeded to the next stage of H1, where the PC is examined in more detail in relation to existing background concentrations of CO.

The ambient background concentration is 252 µg/m³. The PEC for CO is therefore:

$$252 \text{ µg/m}^3 \text{ (background concentration)} + 2542.6 \text{ µg/m}^3 = \mathbf{2794.6 \text{ µg/m}^3}$$

This equates to 28% of the 10000 µg/m³ AQS.

On this basis we are satisfied that there is unlikely to be an exceedence of the CO AQS.

In addition it is important to note that the modelling presents the worst-case scenario for a number of reasons:

- It assumes that the station will operate continuously in double two-shifting mode; this means that the modelled PC is dominated by the impacts of the auxiliary boilers operating. In reality the station will not operate in double two-shifting mode at all times and will be a mix of two shifting and baseload; during baseload the auxiliary boilers will not be used. Actual NO₂ emissions are likely to be lower than the predicted PC; and

- For NO_x, the model assumes that all NO transforms into NO₂. Emissions of NO_x from gas-fired power stations are primarily in the form of NO (~80%). Within ten kilometres of the plant the maximum conversion from NO to NO₂ is likely to be 75% and will be less than this closer to the stack. It is highly unlikely therefore that all NO will transform to NO₂ over the distance from the emission points to the sensitive receptors.

Emissions to Surface Water

Ammonia Dosing of Boiler Blowdown Waters

Replacing the single auxiliary boiler with five new ones will mean that a slight increase in ammonia dosing of the boiler blowdown waters is required. The applicant has undertaken a H1 screening assessment for this increase in ammonia dosing.

The applicant states that the Dee at Connah's Quay is a transitional water and as such has used the 'good ecological status' long-term (annual mean) environmental quality standard (EQS) for un-ionised ammonia as nitrogen of 21 µg/l, which is given in H1 and in Defra's 'Water Framework Directive implementation in England and Wales: new and updates standards to protect the water environment'. There are no equivalent short-term standards for un-ionised ammonia as nitrogen for transitional waters.

The long-term process contribution (PC) (which for emissions to surface water is the concentration of ammonia in the receiving water after dilution) has been calculated as 0.86 µg/l, which is 4.1% of the long-term EQS. Although the PC as a percentage of the EQS is slightly above the insignificance criteria of 4% it must be noted that the applicant has built in conservative assumptions into the calculation, including:

- Assuming the that maximum ammonia concentration is present in blowdown waters at all times;
- Assuming that the heat recovery steam generators and all five new auxiliary boilers operate continuously throughout the year;
- Using the 10-year minimum purge volume to calculate the maximum ammonia concentrations in the purge water;
- Assuming the maximum permitted purge flow rate for the PC calculation; and
- Assuming a low ambient current speed (i.e. low receiving water flow rate).

On this basis we are satisfied that in practice, the actual PC will be below the 4% significance threshold.

Old Rockcliffe Drain

The Old Rockcliffe Drain collects surface water originating from the south of the A548 and also the neighbouring Network Rail Chester to Holyhead railway line. The drain enters the power station boundary and collects surface water from the Heavy Stores area surface roads, areas of hard-standing and building roof drainage of the site and passes through an oil interceptor before passing through the site to an exit point adjacent to W2. Flow from the drain then enters the River Dee. The oil interceptor is included in the site's preventative maintenance regime and is therefore kept in good working order.

We have added an emission point for the Old Rockcliffe drain – W3 – to the permit and included emission limit values for pH for this discharge. It should be noted that this is an existing emission point and therefore we have included it in the permit for completeness. As this is an existing emission point there is no change to the environmental risk.

Annex 1: decision checklist

This document should be read in conjunction with the application and supporting information and permit / notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
Consultation		
Responses to consultation	The internal and external consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and / or protected species or habitat . A full assessment of the application and its potential to affect the habitats has been carried out as part of the permitting process. We consider that the application will not affect the features of the habitats. Formal consultation has been carried out with the Conservation body in Wales. The consultation responses (Annex 2) were taken into account in the permitting decision. See Key Issues section.	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	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.	✓
The Permit Conditions		
Incorporating the application	We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	These descriptions are specified in the Operating Techniques table in the permit. Table S1.2 (as varied) refers to Section 3.2 of the variation application document entitled 'Connah's Quay Power Station EPR/MP3337SH Environmental permit variation application for the operation of five new auxiliary boilers at Connah's Quay Power Station' which describes the operation of the four main CCGT units and five new auxiliary boilers in double two shifting mode.	
Emission limits	<u>Emissions to Air</u> This variation replaces the emission point A10, which previously related to the single auxiliary boiler, with five new emission points: A10a, A10b, A10c, A10d and A10e, which are individual emission points for the five new auxiliary boilers. The five new emission points retain the same emission limit values (ELV) as point A10. We are satisfied that the new emission points represent BAT. <u>Emissions to Water</u> This variation includes in the permit, as emission point W3, the existing surface water emission point for the Old Rockliffe drain. This emission point conveys surface water drained from car parks and hardstanding areas located in non-operational parts of the site. We have imposed an ELV on this emission for pH. We are satisfied that the new emission point represents BAT.	✓
Reporting	We have specified reporting in the permit for the new emission points A10a, A10b, A10c, A10d, A10e and W3. The reporting frequency for A10a, A10b, A10c, A10d and A10e is every 12 months. The reporting frequency for W3 is every 3 months.	✓

Annex 2: Consultation responses

Summary of responses to consultation and the way in which we have taken these into account in the determination process. (Newspaper advertising is only carried out for certain application types, in line with our guidance.)

Response received from
Air Quality Modelling and Risk Assessment Team (AQMRAT)
Brief summary of issues raised
AQMRAT reviewed the E.ON report 'Air Quality Assessment for Connah's Quay Power Station: Flexible Operation' and queried the applicant's use of / selection of: • The NO_x 'Chemistry' module in ADMS 5 • Background NO and NO₂ data • Location of predicted maximum ground level concentration • 'Dry deposition' module in ADMS 5
Summary of actions taken or show how this has been covered
NRW issued a Schedule 5 notice requesting further information on the above points from the applicant. A response on these points was received from the applicant which was reviewed by AQMRAT in turn. AQMRAT confirmed that the justification provided by the applicant was satisfactory and that the results of the modelling assessment could be used in the determination process.

Response received from
Natural Resources Wales (The Conservation Body in Wales)
Brief summary of issues raised
The Conservation Body in Wales was consulted on the Appendix 4, Appendix 11 and Appendix 12 forms completed in relation to the European habitats sites and SSSIs located within 10km and 2km of the power station respectively. The Conservation Body agreed with the conclusions in the Appendix 4, Appendix 11 and Appendix 12 forms; namely that there is likely to be no significant effect on the European habitats sites resulting from the changes at the power station, and that the changes are not likely to damage the any of the special interest features of the SSSIs. They commented that some of the critical loads for nitrogen and acid deposition were not appropriate to the habitat type. They recommended reassessment against appropriate figures but stressed that this would result in minor changes to the assessment only and would not change their overall view that the changes at the site were likely to have no significant effect.
Summary of actions taken or show how this has been covered
Assessment of the process contributions against appropriate critical loads was carried out and sent to the Conservation specialists at NRW for information.

Response received from
Natural England
Brief summary of issues raised
Natural England (NE) were consulted on the Appendix 11 and Appendix 12 forms completed in relation to the European habitats sites located within 10km of the power station in England (specifically the Dee Estuary (SAC, SPA, RAMSAR)). NE agreed with the conclusions in the Appendix 11 and Appendix 12 forms; namely that there is likely to be no significant effect on the European habitats sites resulting from the changes at the power station.
Summary of actions taken or show how this has been covered
N/A