



The Planning Inspectorate
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Our ref: RA/2022/145450/01
Your ref: EN010120
Date: 22 February 2023

Dear Sir/Madam

DRAX POWER STATION BIOENERGY WITH CARBON CAPTURE AND STORAGE EXTENSION DEVELOPMENT CONSENT ORDER: RESPONSE TO EXAMINER'S QUESTIONS ExQ1

We have reviewed the Examining Authority's questions (ExQ1) and wish to offer the following responses set out in the accompanying table.

We trust this answers your questions sufficiently.

Yours faithfully

Mrs Frances Edwards

Planning Specialist (Humber), Sustainable Places

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ExQ1	Question to:	Question:	EA Response
1. GENERAL AND CROSS-TOPIC QUESTIONS			
GEN.1.4	EA/ NE/ NYCC/ SDC	Are you satisfied that the list of plans outlined in the REAC, to be included in the CEMP, is complete? Would you expect any further plans to be listed? Would you expect to see any outline plans at this stage?	We do not consider that the list of plans in outlined in section 1.1.4 of the REAC to be included in the CEMP is complete. The Watercourse Pollution Prevention Plan is not listed in section 1.1.4 of documents to be included within the CEMP, although WE14 of Table 1.1 states that the Plan will be included in the CEMP. We consider that the following should be added to the list in 1.1.4 of the REAC: Watercourse Pollution Prevention Plan including a contingency plan in case of an accident/pollution incident.
2. AIR QUALITY AND EMISSIONS			
AQ.1.2	Applicant/ EA	<ul style="list-style-type: none"> i. Please could the Applicant confirm whether the use of proxy amine and nitrosamine data for the purposes of the operational amine emission modelling was agreed with the EA, given the confidentiality issues with the BECCS technology supplier. ii. Please could the EA provide its view of the Applicant's approach. 	<ul style="list-style-type: none"> i. As a point of clarity, whilst the applicant has made a 'commercial in confidence' request on the naming of the substance(s) in the solvent, this request does not apply to the Environment Agency. The Environment Agency does know the make up of the solvent. ii. The Environment Agency has begun a programme of works in order to determine new environmental assessment levels (EALs) for a range of amines and degradation products. That work initially assessed circa 30 substances based on hazard properties in order to rank them. The highest-ranking amines and degradation products, 15 in total, are now to be assessed in more detail. We will consult with UKHSA prior to publishing any new EALs. In the interim period we consider

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			<p>the use EALs for proxy amine and nitrosamine as being acceptable.</p> <p>Further detail on this is provided within our Written Representation.</p>
AQ.1.3	EA	<p>Could the EA confirm if it is satisfied that:</p> <ul style="list-style-type: none"> i. the modelled emissions profile used for the assessment in ES Chapter 6 [APP-042] represents a reasonable worst case; and ii. the ES provides sufficient detail for the pollution impacts from emissions to air on both public health and ecological receptors to be fully and accurately assessed? 	<p>The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do.</p> <p>Further detail on this is provided within our Written Representation.</p>
AQ.1.4	EA	<p>Figure 6.8 [APP-075] shows a significant area that would fall into the category of slight adverse impact ($\geq 6\%$ of EAL) for annual nitrosamines process contribution, and the dispersion pattern suggests that the area would extend beyond the study area.</p> <p>Does the EA consider the study area to be sufficient for the assessment of the impact of nitrosamines?</p>	<p>The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do.</p> <p>Further detail on this is provided within our Written Representation.</p>
AQ.1.5	EA	<p>Is the EA satisfied that any potential uncertainties in the modelling of atmospheric degradation of amines has been addressed by the Applicant?</p>	<p>The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in</p>

22 February 2023 – EN010120 Environment Agency response to ExQ1

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			<p>effect 'pre-determining' the EPR application which we cannot do.</p> <p>Further detail on this is provided within our Written Representation.</p>
AQ.1.6	Applicant		-
AQ.1.7	EA/ SDC	<p>Can the EA and SDC confirm that they are satisfied with the Applicant's approach of undertaking no additional project-specific air quality surveys as per paragraph 6.5.49 of the ES [APP-042]?</p>	<p>The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do.</p> <p>Further detail on this is provided within our Written Representation.</p>
AQ.1.8	Applicant		-
AQ.1.9	EA	<p>ES Chapter 6 [APP-042] explains that it was not considered appropriate to undertake modelling of cumulative impacts associated with amine compounds due to uncertainty in amine chemistry methodology and conservatism in modelling for proxy compounds. Instead, an approach was taken whereby the maximum predicted MEA and NDMA concentrations from both the Proposed Development and the Keadby 3 assessments were summed and compared to the respective EALs.</p> <p>Please can the EA provide its view of this approach.</p>	<p>We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do. Once the application has been duly made we will then begin a detailed determination of the application. We will assess the Applicant's air quality impact assessment and whether it is / is not appropriate to model cumulative impacts associated with amine compounds. That will involve the air quality impact assessment being fully reviewed by our Air Quality and Modelling Assessment Unit.</p>

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AQ.1.10	Applicant/ EA	<p>The summing of the maximum modelled PC from the Proposed Development and Keadby 3 resulted in a slight adverse effect for the MEA 1-hour averaging period, a negligible effect for the MEA 24-hour averaging period, and a moderate adverse effect for the annual mean NDMA. It is concluded in paragraph 6.12.12 of the ES [APP-042] that this did not represent a significant cumulative effect. This is on the basis that a conservative approach was applied, including the worst-case assumption that maximum concentrations from both schemes would occur at the same location and time anywhere within the operational phase study area; and that the modelled values from both projects represented the sum of MEA and NDMA.</p> <ul style="list-style-type: none"> i. Please can the EA provide its view of the appropriateness of this conclusion. ii. Please can the Applicant provide an explanation as to why an assessment cannot be undertaken that does take into account location and time of cumulative concentrations of amines and nitrosamines. 	<p>The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do.</p> <p>Further detail on this is provided within our Written Representation.</p>
AQ.1.11	EA/ UKHSA	<p>Several RRs raise concerns regarding potential carcinogenic effects of compounds that form from the emissions to air of amines. The Applicant provided its response in point 16.1 of the Applicant's Response to Relevant Representations and Additional Submissions [AS-038].</p>	<p>The Environment Agency has begun a programme of works in order to determine new environmental assessment levels (EALs) for a range of amines and degradation products. That work initially assessed circa 30 substances based on hazard properties in order to rank them. The highest-ranking amines and degradation products, fifteen in total, are now to be assessed in more detail. We will consult with UKHSA prior to publishing any new EALs.</p>

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		The EA and UKHSA are each asked to provide comment on whether further assessment of the impacts to human health is required.	
3. BIODIVERSITY AND HABITATS REGULATIONS ASSESSMENT			
BIODIVERSITY			
BIO.1.12	EA/ NE	The ExA notes the content of Air Quality Technical Note 1, submitted in October 2022, that updates the emissions modelling results in relation to amines and other pollutants, and the Applicant's conclusion that the revised data does not change the conclusions of the air quality assessment and the HRA. Can NE and the EA provide their view of the effect of the revised data on those assessments.	The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do. Further detail on this is provided within our Written Representation.
BIO.1.13	EA	Following mitigation, acid deposition at the Lower Derwent Valley SAC and Brighton Meadows and Barn Hill Meadow SSSIs is modelled to reduce to 1.1% of the CLo, which is an exceedance of the 1% CLo for these sites. This is considered by the Applicant to represent a marginal exceedance and not result in a significant effect. The Applicant is referred to NE's comments on this matter contained in its RR. Can the EA also provide its view of the Applicant's conclusion.	The applicant has applied to vary their existing Environmental Permitting Regulations (EPR) permit. We cannot provide comment on the air quality impact assessment made for planning purposes as that we be in effect 'pre-determining' the EPR application which we cannot do. Further detail on this is provided within our Written Representation. When we are able to fully review the air impact assessment, we will also undertake a full assessment on impacts to sensitive habitats and consult with Natural England.

ExQ1	Question to:	Question:	EA Response
4. CLIMATE CHANGE			
CC.1.1	Applicant	Given the uncertainty over the Proposed Development's operational lifespan, can the Applicant justify the use of the 25-year design life for the purposes of the climate change resilience assessment or provide an updated assessment which accounts for the potential continuation of operation beyond 25 years.	This question was directed to the Applicant however we feel we can assist with the response. Whilst the exact implications of climate change on flood risk are not known, the applicant has considered a range. This has also considered the practicalities of implementing future additional flood resilience beyond the initial 25 years up to an extended lifetime of 60 years.
5. FLOOD RISK AND WATER ENVIRONMENT			
FRW.1.1	Applicant/ EA	<ul style="list-style-type: none"> i. Can you confirm that you consider that the wording in R11 of the dDCO [AS-076] which requires the authorised development to be carried out and operated in accordance with the flood risk assessment satisfactorily secures the flood risk mitigation both during construction and operation for the lifetime of the development? ii. Would you expect further details post-consent or any management or maintenance plan to be submitted? iii. Does the wording of this Requirement ensure works are retained or remain effective? 	<p>i. The Flood Risk Assessment (FRA) provides a satisfactory assessment over an initial design lifetime of 25 years. The EA requested a longer lifetime to be considered which considered 60 years. This proxy was used to also consider a credible maximum set of impacts. The EA are satisfied with the proposed mitigation embedded within the FRA for the initial 25 years and we consider that the wording in R11 of the dDCO [AS-076] is satisfactory to cover the initial design lifetime of 25 years.</p> <p>However, we do require an effective mechanism for securing a future review of flood risk (after 20 years) if an extended lifetime is proposed is sufficient. We have agreed with the Applicant that additional wording is included in R11. Further detail on this is provided within our Written Representation. The FRA also provides details of floodplain compensation which has been discussed with the EA.</p>

ExQ1	Question to:	Question:	EA Response
			<p>ii. We believe the FRA contains the relevant mitigation requirements for an initial design lifetime of 25 years. Other than the point raised in (i) regarding a future intervention to incorporate additional flood risk mitigation if the lifetime is extended, we do not require any further details.</p> <p>iii. The wording of the Requirement is sufficient for the initial design lifetime of 25 years, however we require additional wording in the Requirement to allow for the development to have an extended lifetime. Further detail on this is provided within our Written Representation. In relation to the floodplain compensation measures, we understand that the applicant has sufficient control over this land to ensure it remains available so long as the development requires. Construction and maintenance of the area is mentioned within the REAC under refs WE16 and WE17 for Work no. 7.</p>
FRW.1.2	EA	<p>In its RR [RR-051], the EA disagreed with the scoping out of some of the surface water drainage features highlighted within Table 12.2 of ES Chapter 12 and invited the Applicant to discuss these matters. The Applicant responded to these points in its response to the RRs [PDA-002]. Can the EA state whether it considers that its concerns have been addressed by the additional information provided.</p>	<p>We consider that the concerns previously raised in our RR [RR-051] have been addressed with the Applicant's response to the RRs [PDA-002].</p>
FRW.1.3	EA	<p>In the Applicant's Response to RRs it states that, although the presence of great crested newts has been recorded in the ponds, they are not likely to be affected by the construction of the Proposed</p>	<p>We agree the earth embankment constitutes a physical barrier and great crested newts are not likely to be affected by the construction of the Proposed Development so long as</p>

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		Development given that they are separated from the Proposed Development and construction areas by an earth embankment. Do you agree?	the embankment remains intact throughout the construction phase.
FRW.1.4	Applicant	WE14 of the REAC [AS-092] states that prior to any works being undertaken, a watercourse pollution prevention plan will be prepared and shared with the EA. How is the submission and approval of this plan secured?	-
FRW.1.5	EA	In its RR [RR-051] the EA states that it is undertaking a review of the Applicant's flood risk model and is unable to confirm whether the modelling is fit for purpose at this time. Can the EA please provide an update on the outcome of the flood risk modelling review.	We can confirm that the EA has completed its review and is satisfied with the fitness for purpose and the conclusions that the applicant's modelling has reached. We have amended the SoCG to match this statement.
FRW.1.6	Applicant	The PPG on Flood Risk and Coastal Change was updated on 25 August 2022. The changes are a significant refresh to the guidance and bring the PPG up to date and in line with the latest policy position on flood risk introduced in the updates to the NPPF in 2018 and 2021. Please advise whether the update affects the assessment undertaken.	<p>This question was directed to the Applicant however we feel we can assist with the response. The updated PPG chapter on Flood Risk and Coastal Change and the NPPF amendments have been considered. In addition, the applicant's FRA has considered the following:</p> <p style="padding-left: 40px;">The relevant National Policy Statements, particularly with regard the 'credible maximum' climate change allowances, when applied to the anticipated development lifetime.</p>
6. GROUND CONDITIONS AND CONTAMINATION			
GROUND CONDITIONS AND CONTAMINATION – CHANGE REQUEST			

22 February 2023 – EN010120 Environment Agency response to ExQ1

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GCC.1.9	EA	<p>Does the EA agree with the Applicant's conclusion in Table 5-1 of the PCAR [AS-045] that the identified soil leachate exceedances (as contained in PCAR Appendix 1: FCA Soil Testing Technical Note [AS-050]) are marginal in nature and not significant, and do not preclude the use of the area as a proposed FCA?</p>	<p>We agree with the Applicant's conclusion on soil leachate exceedances. Ammoniacal nitrogen has been detected at elevated levels within the soils of the proposed FCA. There are also marginal exceedances of metals. The proposed FCA is near to but outside of defined Source Protection Zones and Safeguard Zones. Water stored within the FCA would infiltrate to ground as well as drain to Carr Dike and the River Ouse where contaminants will be subject to dilution. Pragmatically the risk associated with this parcel of land being used as a FCA is generally low.</p>