

The Planning Inspectorate
[via Planning Inspectorate website]

Our ref: NA/2024/116726/02-L01
Your ref: EN070009
Date: 3 October 2024

Dear Sir/Madam

**H2TEESSIDE PROJECT – THE EXAMINING AUTHORITY’S FIRST WRITTEN
QUESTIONS AND REQUESTS FOR INFORMATION (EXQ1)
LAND EITHER SIDE OF THE RIVER TEES WITHIN THE BOROUGH OF
REDCAR AND CLEVELAND AND STOCKTON-ON-TEES ON TEESSIDE AND
THE BOROUGH OF HARTLEPOOL IN COUNTY DURHAM**

Please find enclosed the Environment Agency’s (EA) comments on the Examining Authority’s first written questions and requests for information (ExQ1), which we received on 4 September 2024.

Please do not hesitate to contact me if you have any questions regarding this letter.

Yours faithfully,

Cameron Chandler
Planning Advisor

EA comments to Examining Authority's written questions

ExQ1	Question to:	Question and EA response
ExQ1.1.7	Applicant/ Environment Agency (EA)	<p>Clarification/ Views sought</p> <p>The Examining Authority (ExA) notes the use of Amine products within the proposed Carbon Capture element of the Proposed Development and would ask:</p> <ul style="list-style-type: none"> i) By what mechanisms are the use of Amine products controlled (ie do they form part of the Environmental Permit (EP) controls? ii) Should the control of Amine products be dealt with through the Development Consent Order (DCO)? <p>EA response:</p> <ul style="list-style-type: none"> i) Amine products will be controlled by the Environmental Permitting Regulations (EPR) permit. These controls cover the delivery of these products onto site, the bulk storage and bunding of relevant tanks, venting and fugitive emissions from storage, pipeline delivery into the Carbon Capture Plant (CCP) and its use to capture CO₂, and eventually the abatement of emissions and the monitoring of emissions from the CCP.
ExQ1.2.9	Applicant, Natural England (NE) and the EA	<p>Connection Corridor Routing (Water Corridors) Clarification/ Views sought.</p> <p>Paragraph 6.7.10 of ES Chapter 6 (Needs, Alternatives and Design Evolution) [APP-058] refers to two options in terms of effluent management. When will a final decision be made on the option chosen and are NE/ EA satisfied in regard to 'Nutrient Neutrality' and the final methods of disposal currently detailed in both options?</p> <p>EA response:</p> <p>The two options for effluent management are acceptable to the EA. We refer to Natural England on any nutrient neutrality matters.</p>
ExQ1.2.10	NE, the EA and relevant Local Authorities (LAs) together with any other relevant Authority/ Body	<p>Connection Corridor Routing (Water Corridors) Views sought.</p> <p>Are you satisfied in terms of the options under consideration for the disposal of surface water run-off arising from the Proposed Development, as set out in Paragraph 6.7.10 (Third Bullet Point) of ES</p>

		<p>Chapter 6 (Needs, Alternatives and Design Evolution) [APP-058]?</p> <p>EA response: Either option is satisfactory as the discharge will be clean surface water only.</p>
<p>ExQ1.3.2</p>	<p>Applicant/ EA</p>	<p>Clarification/ View(s) sought.</p> <p>Paragraph 8.2.17 of ES Chapter 8 (Air Quality) [APP-060] states part of the technology used, such as the auxiliary boilers, will need to comply with the Large Combustion Plant BRef, as the aggregated thermal input is predicted to be over 50 MW. However, as the boilers will run on a hydrogen rich tail gas during normal operations, the natural gas Emission Limit Values (ELVs) cannot be used directly and will be updated to take the hydrogen content of the tail gas into account.</p> <p>i) Can the Applicant provide a further explanation as to why it considers the natural gas ELVs cannot be used directly.</p> <p>ii) Please confirm whether the EA agrees with the Applicant's approach and assessment, and whether it is considered the approach has any implications for the air quality assessment.</p> <p>EA Response: ii) We are unable to comment on this matter. This will be assessed via the EPR permit.</p>
<p>ExQ1.3.4</p>	<p>NE, the EA and relevant LAs (HBC, RCBC and STBC, together with any other relevant Authority/ Body</p>	<p>Views sought.</p> <p>Paragraph 8.3.1 – 8.3.2 of ES Chapter 8 (Air Quality) [APP-060] states that the Study Area for construction dust and construction Non-Road Mobile Machinery emissions has been applied in line with the IAQM guidance 2024 extending:</p> <ul style="list-style-type: none"> • up to 250 m beyond the Proposed Development Site and 50 m from the construction traffic routes (up to 250 m from the Proposed Development Site entrances), for human health receptors; and • up to 50 m from the Proposed Development Site and construction traffic routes (up to 250 m from the Proposed Development Site entrances) for ecological receptors. <p>The ExA would ask the EA, NE and LAs to confirm whether they consider the Study Area distances</p>

		<p>assessed by the Applicant and set out above, are appropriate and acceptable in respect of the air quality study areas.</p> <p>EA response: The Applicant is required to comply with the Emission Limit Values contained within the Non-Road Mobile Machinery (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018, during the construction and operation phases, limiting emissions to air.</p>
<p>ExQ1.3.5</p>	<p>NE, the EA and relevant LAs (HBC, RCBC and STBC) together with any other relevant Authority/ Body</p>	<p>Views sought.</p> <p>Paragraph 8.3.4 of ES Chapter 8 (Air Quality) [APP-060] states the Study Area or the operational Proposed Development point source emissions extends up to 15 kilometres (km) from the emission sources to assess the potential impacts on ecological receptors. This is in line with the EA Risk Assessment Methodology (Defra and EA, 2016, as updated in 2023) but also includes additional sites requested by the Proposed Development biodiversity specialists:</p> <ul style="list-style-type: none"> • Special Protection Area(s) (SPA), Special Area(s) of Conservation (SAC), Ramsar sites and Sites of Special Scientific Interest (SSSIs) within 15 km of the Proposed Development Site; and • Local Nature Sites (including ancient woodlands, Local Wildlife Sites and National and Local Nature Reserves) within 2 km of the Proposed Development Site. <p>Paragraph 8.3.5 of ES Chapter 8 (Air Quality) [APP-060] lists the additional sites to include the North York Moors SPA and SSSI, the North Cumbria Coast SPA, Durham Coast SAC, Northumbria Coast Ramsar, Cliff Ridge SSSI, Durham Coast SSSI and National Nature Reserve, Hart Bog SSSI, Langbaugh Ridge SSSI, Loe Hill Pools SSSI, Roseberry Topping SSSI and Saltburn Gill SSSI. Please state whether the EA, NE and LAs, together with any other relevant Authority/ Body,:</p> <ol style="list-style-type: none"> i) considers the Study Area of 15 km to be satisfactory to assess the potential impacts on ecological receptors. ii) have any comments and observations on the additional areas included by the Applicant as the ecological receptors for the Study Area. iii) have any other observations to make in

		<p>respect of Paragraph 8.3.5 – 8.3.6 of ES Chapter 8 (Air Quality) [APP-060].</p> <p>EA response: We have no comments to make on these questions.</p>
ExQ1.3.7	LAs (HBC, RCBC and STBC), together with any other relevant Authority/ Body	<p>Views sought.</p> <p>It is stated in paragraph 8.3.10 of ES Chapter 8 (Air Quality) [APP-060] that there may be a period following opening of Phase 1 where Phase 1 will be operational and Phase 2 in construction. There may be construction traffic pollutant emissions from Phase 2 construction at the same time as operation point source emissions from Phase 1 with two different types of emissions sources (road traffic emissions typically extending up to 200 m from the source with emissions released near ground level whilst operational emissions are released over a broader area, from height). This means, that typically, the greatest pollutant contributions at receptors in the Study Area will be very different for the two emission types.</p> <p>For completeness, the predicted contributions at receptors that may experience impacts from both sources have been combined to demonstrate the total pollutant contribution from the two emission sources. It is noted that this is a very precautionary approach as it combines the peak construction traffic pollutant contributions with the combined pollutant contributions from Phase 1 and 2 operations.</p> <p>Bearing the above in mind, please confirm whether the EA and LAs, together with any other relevant Authority/ Body:</p> <ul style="list-style-type: none"> i) Agree with the approach adopted by the Applicant in paragraphs 8.3.9-8.3.10 of ES Chapter 8 (Air Quality) [APP-060]. ii) Have any comments or observations in relation to the assessment methodology adopted by the Applicant in ES Chapter 8 (Air Quality) [APP-060] and the Applicant's conclusions on the impacts and LSE set out in Paragraph 8.6 of the same document. <p>EA response: i) Emissions from the operational plant will be regulated under the EPR permit.</p>
ExQ1.3.9	NE, the EA and relevant LAs	Clarification/ Views sought.

	<p>(HBC, RCBC and STBC), together with any other relevant Authority/ Body</p>	<p>Paragraphs 8B.2.14 and 8B.2.15 of ES Appendix 8B (Air Quality - Operational Phase) [APP-191] sets out a list of cumulative developments which are either consented or about to receive planning consent but yet to come into operation and which have potential operational air quality impacts. The details of the cumulative assessment is presented at 8B.11 (Annex B: Cumulative Assessment Inputs and In-Combination Results) of that document.</p> <p>Bearing in mind the above:</p> <p>i) Please confirm whether the LAs, together with any other relevant Authority/ Body, are satisfied with the list of consented, or soon to be consented, cumulative development included in that list.</p> <p>Should any of the Interested Parties (IPs) listed in the question above not be satisfied, please provide full details of those consented or about to be consented development it believes are missing from the list.</p> <p>When providing such details please provide a statement confirming the status of the planning application (ie Planning permission granted, resolution to grant subject to the prior completion of a legal agreement, undetermined, on appeal, etc, as well as details of the planning application, including, but not limited to, the planning application number, a description of and location of the Development, a copy of the planning permission granted or resolution to grant planning permission, etc).</p> <p>ii) Please advise whether the LAs, together with any other relevant Authority/ Body, have any observations or comments on the cumulative assessment set out in 8B.11 Annex B (Air Quality - Operational Phase) [APP-191].</p> <p>EA response:</p> <p>i. We are unable to provide a specific answer to this question, as we cannot predetermine the EPR permit application process. Cumulative inputs and in-combination impacts will be assessed as part of the EPR permit.</p>
<p>ExQ1.3.10</p>	<p>Applicant, EA, UK Health Security</p>	<p>Clarification/ Views sought.</p>

	<p>Agency (UKHSA) and relevant LAs (HBC, RCBC and STBC), together with any other relevant Authority/ Body</p>	<p>Paragraph 8.3.35 of ES Chapter 8 (Air Quality) [APP-060] states that there will be no emissions to air of amines and amine degradation products during normal operation, as the CO₂ capture process is a closed loop system.</p> <p>i) Can the Applicant explain how the close loop system for the carbon capture process ensures that there will be no emission of amine and amine degradation products during normal operation.</p> <p>ii) Are the UKHSA, EA and LAs, together with any other relevant Authority/ Body, content with the approach adopted by the Applicant in respect of amine and amine degradation products emission during normal operations.</p> <p>EA response:</p> <p>ii) We are unable to provide a specific answer to this question, as we cannot predetermine the EPR permit application process.</p>
<p>ExQ1.3.11</p>	<p>EA</p>	<p>View(s) sought.</p> <p>Please could the EA:</p> <p>i) Confirm whether it is satisfied that the approach adopted in Paragraphs 8B 2.2 - 8B 2.4 of ES Appendix 8B (Air Quality - Operational Phase) [APP-191], in regard to the assessment of operational process emissions, is considered to be a reasonable “worst case” scenario.</p> <p>ii) Comment, if required, on the approach used in the dispersion modelling assessment set out in paragraph 8B.2.9 of ES Appendix 8B (Air Quality - Operational Phase) [APP-191].</p> <p>iii) Confirm you are content with the approach adopted to the modelling of the emissions, as set out in paragraphs 8B.3.4 - 8B.3.7 of ES Appendix 8B (Air Quality - Operational Phase) [APP-191].</p> <p>iv) Provide any observations in relation to Tables 8B-2 and 8B-3 of ES Appendix 8B (Air Quality - Operational Phase) [APP-191], as you may consider necessary.</p> <p>EA response: We are unable to provide a specific answer to these questions, as we cannot predetermine the EPR permit application.</p>
<p>ExQ1.5.3</p>	<p>EA, UKHSA, and relevant LAs (HBC, RCBC and</p>	<p>Views sought.</p> <p>Paragraphs 19.5.12 – 19.5.19 of ES Chapter 19 (Climate Change) [APP-072] sets out the</p>

	<p>STBC), together with any other relevant Authority/ Body</p>	<p>methodology and assessment for determining potential GHG emissions from the Proposed Development during the construction, operational and decommissioning phase, whilst Tables 19-1 - 19-3 summarise the key anticipated GHG emissions sources from the construction, operational and decommissioning stage and whether they have been scoped in or out of the assessment ES Chapter 19 (Climate Change) [APP-072]. With this in mind:</p> <ul style="list-style-type: none"> i) Do the EA, UKHSA and LAs together with any other relevant Authority/ Body agree with the assessment methodology adopted by the Applicant regarding GHG emissions, as set out in paragraphs 19.5.12 – 19.5.19 referred to above? ii) Do the EA, UKHSA and LAs together with any other relevant Authority/ Body have any comments or observations to make in regard to Tables 19-1 - 19-3 concerning potential emission. iii) Can the EA confirm whether the Applicant has agreed appropriate conditions/ measures with them in this regard, which will be incorporated into any EP issued by them, especially in regard to GHG emissions or whether discussions are ongoing. If conditions/ measures have been agreed, please enter a copy of those conditions/ measures into the Examination or explain why that would not be possible. <p>EA response:</p> <ul style="list-style-type: none"> i. We are unable to provide a specific answer to this question, as we cannot predetermine the EPR permit application. ii. We are unable to provide a specific answer to this question, as we cannot predetermine the EPR permit application. iii. We are unable to agree appropriate conditions or measures with the Applicant prior to the submission of their EPR application as this may pre-determine the permit application process. Greenhouse Gas (GHG) emissions during the material selection and use of construction materials are not regulated by the EA. Point source and fugitive emissions of GHG during the operational phase of a process are regulated by the EPR Permit.
ExQ1.10.10	EA	Clarification.

		<p>In your RR [RR-009] you note that the proposed hydrogen pipeline corridor could be underground and advise that GI may be appropriate in this location, as detailed in Table 7-3 of ES Chapter 10 (Geology, Hydrogeology and Land Contamination) [APP-062]. However, the ExA is unclear which table you are referring to, as there is no Table 7-3 in this Chapter of the ES. Please clarify.</p> <p>EA response: This relevant representation has been reviewed and it appears to have referred to Table 7-3 in error.</p> <p>The amended paragraph within this RR should read: 'Additional information can be sought from the Local Authority. Figure 4.4 shows the hydrogen pipeline corridor within this area to be 'overground and underground pipelines' along the eastern edge of the site being investigated. It may therefore be appropriate to undertake ground investigation within this area, following the guidance quoted in Section 10.5.8'.</p>
ExQ1.12.4	EA	<p>View sought.</p> <p>Table 21-10 of ES Chapter 21 (Materials and Waste Management) [APP-074] details the consultation and response to the EA in relation to the proximity of historic and operational landfills sites. Please confirm you are satisfied with the Applicants response, and if not please explain why.</p> <p>EA response: We are satisfied with the applicant's response.</p>
ExQ1.14.2	UKHSA, EA, LAs (HBC, RCBC and STBC), together with any other relevant Authority/ Body	<p>Views sought.</p> <p>The Applicant describes the Proposed Development as a 'First of its Kind' project in terms of scale stating that hydrogen production is a developing area. The Applicant further states that increasing investment in the sector is resulting in technological advancement (Paragraph 5.2.1 of the DAS [APP-034]).</p> <p>In light of the above:</p> <p>i) Can the EA, UKHSA, and/ or LAs, together with any other relevant Authority/ Body, comment on the Applicant's approach to the assessment of major accidents as set out in ES Chapter 20 [APP-073])?</p>

		<p>ii) Are the EA, UKHSA and LAs, together with any other relevant Authority/ Body, satisfied that the Applicant has identified and adequately assessed the potential risks associated with the Proposed Development, including the Hydrogen production and capture and compression of CO₂ together with its transport?</p> <p>EA response: We are unable to provide a specific answer to these questions as we cannot predetermine the EPR permit application process.</p>
ExQ1.14.3	Applicant/ EA	<p>Clarification/ Views sought.</p> <p>Table 20-2: Responses to the Statutory Consultation Feedback of ES Chapter 20 (Major Accidents and Disasters) [APP-073] sets out the EAs response where they noted several other issues and concerns, including in relation to the Preliminary Environmental Information Report (PEIR) missing a list of proposed dangerous chemicals and a proposed inventory. In response the Applicant has stated that a provisional chemical list is provided in ES Chapter 21 (sic) (Major Accidents and Disasters), but does not actually direct the reader to that list. It is assumed that the Applicant is referring to Table 20-4 of ES Chapter 20 (Major Accidents and Disasters) [APP-073].</p> <p>Can the Applicant confirm the above assumption is correct?</p> <p>Does the EA consider that the Applicant's response in Table 20-4 of the above mentioned Chapter of the ES is adequate and can it confirm whether or not the other issues and concerns raised by them, as referred to in Table 20-2 have been addressed?</p> <p>EA response: A list of dangerous substances has been provided. However, it is noted that some substances have not been decided upon by the applicant at this point. We would expect these to be identified during an application to the HSE and the local authority for a Hazardous Substance Consent.</p>
ExQ1.14.6	Applicant, EA, UKHSA, HSE, and LAs (HBC, RCBC and STBC), together with any	<p>Clarification/ Views sought.</p> <p>Paragraph 20.3.27 of ES Chapter 20 (Major Accidents and Disasters) [APP-073] states in addition to the Proposed Development there are</p>

	<p>other relevant Authority/ Body</p>	<p>other neighbouring projects which are ongoing with different delivery timescales, ie HyGreen and NZT Power. These projects will be in different stages of implementation through the construction, commissioning and operation of Phases 1 and 2 of the Proposed Development. The Proposed Development Site is located within an area which has several COMAH installations where the risks or consequences of a major accident may be increased due to the proximity of the sites to each other.</p> <p>i) Please can the Applicant explain what appropriate modelling, safe distance and plant design will be adopted to demonstrate that risks are as ‘Low As Reasonably Practicable’?</p> <p>In addition to the above, it is noted that the Proposed Development is to form part of a cluster of existing and other proposed developments that are or will be COMAH sites, which may increase the potential risks associated or consequences of a major accident due to the presence of a domino group .</p> <p>ii) Can the Applicant please explain how the embedded measures in the design and construction of the Proposed Development will be sufficient to reduce or off-set any increased potential risks associated with major accidents due to the domino group?</p> <p>iii) Does the, UKHSA, HSE, EA and LAs have any comments on the Applicant’s assessment of the existing and proposed domino developments in respect of Credible Scenarios and embedded mitigation?</p> <p>The ExA notes from Paragraph 20.3.23 of ES Chapter 20 (Major Accidents and Disasters) [APP-073] that the Applicant has been in consultation with the HSE.</p> <p>iv) Can the Applicant and/ or relevant LAs advise whether the HSE have provided any site plans showing HSE Zones related to other uses (existing or proposed) in the area of the Proposed Development, which have implication for COMAH and whether the HSE have issued</p>
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		<p>any ‘Advise Against’ or ‘Do Not Advise Against’ advice letters in relation to the Proposed Development?</p> <p>EA response:</p> <p>iii) We are unable to provide a specific answer to these questions. These matters will be addressed as part of the EPR application and/or Control of Major Accident Hazards Regulations 2015.</p>
<p>ExQ1.14.9</p>	<p>UKHSA, EA, and LAs (HBC, RCBC and STBC), together with any other relevant Authority/ Body</p>	<p>Views sought.</p> <p>Please confirm whether you have any comments or observations with regards to the following paragraphs and/ or tables contained in the Applicant’s ES Chapter 20 (Major Accidents and Disasters) [APP-073]:</p> <ul style="list-style-type: none"> • Proposed Development Design and Impact Avoidance/ Minimisation (Paragraphs 20.5.1 - 20.5.25); • Impacts and LSEs, including the Shortlisted Major Accidents and Disasters Scenarios (Paragraphs 20.6.1 - 2.6.16); and <p>The ‘Credible Scenarios Related to the Construction of the Proposed Development’ (Table 20-3).</p> <p>EA response: We are unable to provide a specific answer to this question. This matter will be addressed as part of the EPR application and/or Control of Major Accident Hazards Regulations 2015.</p>