

Tees CCPP Project

The Tees Combined Cycle Power Plant Project

Land at the Wilton International Site, Teesside

Applicant's Comments on the Environment Agency's Responses to the Examiner's Written Questions

Examination Deadline 3

The Planning Act 2008 (as amended)



Applicant: Sembcorp Utilities (UK) Limited
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GLOSSARY

Abbreviation	Description
AGI	Above Ground Installation
AIL	abnormal indivisible loads
AIL	abnormal indivisible loads
AOD	above ordnance datum
AQMA	Air Quality Management Areas
ASI	Accompanied Site Inspection
BAT	Best Available Techniques
BCA	Bilateral Connection Agreement
BCA	Bilateral Connection Agreement
CAA	the Civil Aviation Authority
CCR	Carbon Capture Readiness
CCS	Considerate Constructors Scheme
CCS	Considerate Constructors Scheme
CEA	cumulative effects assessment
CEMP	Construction Environmental Management Plan
CEMS	Continuous Emission Monitoring System
CEMS	Continuous Emission Monitoring System
CHP	Combined Heat and Power
CL	Critical Load/Level
CoCP	Code of Construction Practice
ConsAg	Construction Agreement
CTMP	Construction Traffic Management Plan
CTMP	Construction Transport Management Plan
DCO	Development Consent Order
dDCO	draft Development Consent Order
DMRB	Design Manual for Roads and Bridges
EA	Environment Agency
EA	Environment Agency
EM	Explanatory Memorandum
EMF	electromagnetic fields
EN-1	National Policy Statement for Energy
EPC	Engineering, Procurement and Construction
ES	Environmental Statement
ES	Environmental Statement
FRA	Flood Risk Assessment
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, Third Edition
HER	Historic Environment Record
HIA	Health Impact Assessment
HRA	Habitats Regulations Assessment
HRSG	heat recovery steam generator
HSE	Health and Safety Executive

Abbreviation	Description
IAQM	Air Quality Management
ICNIRP	International Commission on Non-Ionising Radiation Protection
IEMA	Institute of Environmental Management and Assessment
LAQM	Local Air Quality Management
LSE	likely significant effects
LVIA	landscape and visual impact assessment
MMP	Materials Management Plan
NCA	National Character Areas
NE	Natural England
NE	Natural England
NGET	National Grid Electricity Transmission Plc
NGG	National Grid Gas
NO ₂	nitrogen dioxide
NO _x	nitrogen
NPS	National Policy Statement
NPS	National Policy Statement
NTS	National Transmission System
NTS	National Transmission System
PA 2008	Planning Act 2008
PEC/CL	Predicted Environmental Concentration/Critical Load
PEIR	Preliminary Environmental Impact Report
RCBC	Redcar and Cleveland Borough Council
SNR	Strategic Road Network
SPA	Special Protection Area
SPD	Supplementary Planning Document
SWMP	Site Waste Management Plan
SWMP	Site Waste Management Plan
TA	Transport Assessment
TRA	Transmission Related Agreement
TRA	Transmission Related Agreement
TVWT	Tees Valley Wildlife Trust
WFD	Water Framework Directive

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1 INTRODUCTION

Overview

- 1.1 This document has been prepared on behalf of Sembcorp Utilities (UK) Limited ('SCU' or the 'Applicant') in respect of its application (the 'Application') for a Development Consent Order (a 'DCO'). The Application was accepted for examination by the Secretary of State (the 'SoS') for Business, Energy and Industrial Strategy on 18 December 2017. The Examination began on 10 April 2018.
- 1.2 SCU is seeking a DCO for the construction, operation and maintenance of a new gas-fired electricity generating station with a nominal net electrical output capacity of up to 1,700 megawatts ('MW') at ISO conditions (the 'Project' or 'Proposed Development'), on the site of the former Teesside Power Station, which forms part of the Wilton International Site, Teesside.
- 1.3 A DCO is required for the Proposed Development as it falls within the definition and thresholds for a 'Nationally Significant Infrastructure Project' (a 'NSIP') under Sections 14 and 15(2) of the Planning Act 2008 ('PA 2008').
- 1.4 The DCO, if made by the SoS, would be known as the 'Tees Combined Cycle Power Plant Order' (the 'Order').

SCU

- 1.5 SCU provides vital utilities and services to major international process industry customers on the Wilton International site on Teesside. Part of Sembcorp Industries, a Singapore-based group providing energy, water and marine services globally, Sembcorp Utilities UK also owns some of the industrial development land on the near 810 hectares (2,000 acre) site which is marketed to energy intensive industries worldwide.
- 1.6 SCU owns the land required for the Proposed Development.

The Project Site

- 1.7 The Project Site (the 'Site') is on the south west side of the Wilton International Site, adjacent to the A1053. The Site lies entirely within the administrative area of Redcar and Cleveland Borough Council ('RCBC') which is a unitary authority.
- 1.8 Historically the Site accommodated a 1,875 MW Combined Cycle Gas Turbine power station (the former Teesside Power Station) with the ability to generate steam for utilisation within the wider Wilton International site. The Teesside Power Station ceased generation in 2013 and was demolished between 2013 and 2015.
- 1.9 SCU has identified the Site, based on its historical land use and the availability of natural gas supply and electricity grid connections and utilities as a suitable location for the Project. In summary, the benefits of the Site include:
- brownfield land that has previously been used for power generation;
 - on-site gas connection, supplied from existing National Grid Gas Plc infrastructure;
 - on-site electrical connection, utilising existing National Grid Electricity Transmission infrastructure;
 - existing internal access roads connecting to a robust public road network;
 - availability of a cooling water supply using an existing contracted supply (from the Wilton Site mains) and existing permitted discharge consent for effluent to the site drainage system
 - screening provided by an existing southern noise control wall, approximately 6 m in height;
 - potential for future Combined Heat and Power ('CHP') and Carbon Capture and Storage ('CCS'); and
 - existing services, including drainage.

1.10 A more detailed description of the Site is provided at Chapter 3 'Description of the Site' of the Environmental Statement ('ES') Volume 1 (Application Document Ref. 6.2.3).

The Proposed Development

1.11 The main components of the 'Proposed Development' are summarised below:

- **Work No. 1** - a natural gas fired electricity generating station located on land within the Wilton International site, Teesside, which includes the site of a former CCGT power station, with a nominal net electrical output capacity of up to 1,700 MWe at ISO Conditions; and
- **Work No. 2** - associated development comprising within the meaning of section 115(2) of the 2008 Act in connection with the nationally significant infrastructure project referred to in Work No. 1.

1.12 Please refer to Schedule 1 of the Draft DCO (Application Document Ref. 2.1) for more detail.

1.13 It is anticipated that subject to the DCO having been made by the SoS (and a final investment decision by SCU), construction work on the Project would commence in around the second half of 2019. The construction of the Project could proceed under one of two scenarios, based on SCU's financial modelling, as follows.

1.14 '**Scenario One**': two CCGT 'trains' of up to 850 MW are built in a single phase of construction to give a total capacity of up to 1,700 MW.

1.15 '**Scenario Two**': one CCGT train of up to 850 MW is built and commissioned. Within an estimated five years of its commercial operation the construction of a further CCGT train of up to 850 MWe commences.

1.16 The above scenarios have been fully assessed within the ES.

1.17 A more detailed description of the Project is provided at Schedule 1 'Authorised Development' of the draft DCO (Application Document Ref. 2.1) and Chapter 5 'Project Description' of the ES Volume 1 (Application Document Ref. 6.2.5).

The purpose and structure of this document

1.18 This document forms part of a package of documents submitted by the Applicant for Deadline 3 of the Examination. It sets out the Applicant's comments on the Environment Agency's ('EA') responses to the Examiners ('ExA') written questions – see Section 2 of this report.

2 THE APPLICANT'S RESPONSES

- 2.1 The Applicant's comments on the EA's responses to the ExA's written questions are set out in Table 2.1 on the following pages.

Table 2.1 – Applicant's comments

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
1	Air Quality and Emissions		
Q1.1.4	<p>Paragraph 7.30 of the ES [APP-049] states that 'At the Permitting stage consideration will need to be given to whether the Project will need to comply with BAT AELs'. [Best Available Technology Associated Emission Levels]</p> <p>As the permitting process is separate from the DCO process, could the design proposed in the DCO application require any other technologies or emission control measures (i.e. that are not assessed in the ES/ Habitats Regulations Assessment (HRA) report) in order to achieve BAT?</p>	<p>The Environmental Permit application has not yet been submitted or duly made and we have yet to begin the process of determination.</p> <p>During the permitting process, should the environmental impact of the proposed plant be determined to be significant, we can set stricter emission limit values than those in legislation to provide protection for the environment and human health. A tighter emission limit value may require the applicant to add relevant abatement equipment to the process.</p>	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
Q1.1.5	<p>In Table 7.1 of the ES [APP-049] the Environment Agency (EA) commented that an Environmental Permit will be required. The Applicant's response was that the EA had indicated that it was not unlikely that the EA would issue a permit.</p> <p>Can the Applicant please provide evidence to confirm that the EA has no major permitting concerns and the necessary Environmental Permit is therefore capable of being granted?</p>	<p>The Environmental Permit application has not yet been submitted or duly made and we have yet to begin the process of determination however during pre-Environmental Permit application discussions with the Applicant we stated that it is unlikely that the Environment Agency would refuse an Environmental Permit, based on the information viewed at that time (1 March 2017) and subject to our detailed assessment of the final permit application.</p>	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
Q1.1.6	<p>As set out in Table 7.1 of the ES [APP-049] the EA commented that the Predicted Environmental Concentration/Critical Load (PEC/CL) is greater than 100% at 7 habitat locations. This is because the data is dominated by high background levels which the applicant noted is not due to project contributions which are an output of the dispersion modelling. Nevertheless, as acknowledged in paragraph 7.85 of the ES the issue for ecosystems is the possibility that the deposition rate of acid or nutrient nitrogen may be in excess of the amount that the ecosystem can tolerate i.e. the critical load.</p> <p>Please clarify.</p>	<p>The PEC/CL ratio is calculated for screening purposes. If the PEC is greater than 70% of the long-term environmental standard, the applicant has to provide detailed air modelling. This has already been provided in the DCO application.</p> <p>Our GOV.UK guidance (Air emissions risk assessment for your Environmental Permit) states that an applicant will need to do a cost benefit analysis if any of the following apply: a PC (process contribution) could cause a PEC to exceed an environmental standard (unless the PC is very small compared to other contributors) and the PEC is already exceeding an environmental standard.</p> <p>The need for a cost benefit analysis will be assessed during the determination of the Environmental Permit. The Environmental Permit application has not yet been received or duly made and we have yet to begin the process of determination. We remain unable to answer detailed questions from the ExA that could pre-determine the outcome of the Environmental Permit application.</p>	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
2	Biodiversity, Ecology and Natural Environment		

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
Q1.2.6	Can the Applicant, EA and NE comment on the reliance placed on the EA's significance criteria as set out in Table 7.11 of the ES [APP-049] and Table H2.2 of the HRA report [APP-076] in concluding no likely significant effects (LSE) of the project alone and in-combination for the purposes of HRA. In particular, why the relevant thresholds are applicable for HRA (e.g. increases in process contributions to critical loads of less than 1% being considered 'insignificant').	<p>The 1% threshold is a screening level below which the environmental impact would be so low as to be insignificant. Above the 1% threshold, further modelling and assessments are required.</p> <p>The impacts of the proposed activities on the internationally designated sites or SSSIs or non-statutory sites or any other protected habitats in the vicinity of the application site will be considered through a separate HRA as part of the determination of the Environmental Permit application.</p>	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
Q1.2.8	Can the Applicant, EA and NE explain if and why the thresholds applied in the Applicant's assessment for determining the absence of LSE (or otherwise) are appropriate for European sites where there are already exceedances above the critical loads or levels for given pollutants (as acknowledged in paragraph H1.57 and set out in Appendix A of the HRA report [APP-076]. The ExA notes that Table H2.1 of the HRA report includes links to Site Improvement Plans for the Teesmouth and Cleveland Coast SPA and the North York Moors SPA and SAC, which refer to atmospheric nitrogen deposition as issues which are currently impacting or threatening the sites. The explanation provided should take into account the impact of the Proposed Development alone and in-combination with other plans and projects.	<p>At the DCO stage, we will not comment on whether the thresholds used by the applicant are suitable or not. This matter should be considered by NE.</p> <p>Through Environmental Permitting process we will consider whether the proposed level of pollution from this site going to be acceptable in relation to SAC / SPA and other protected habitats within the vicinity. We remain unable to answer detailed questions from the ExA that could pre-determine the outcome of the Environmental Permit application.</p>	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
Q1.2.12	Please confirm whether all relevant plans/projects which may result in in-combination effects together with the Proposed Development have been identified and considered in the Applicant's HRA report [APP-076].	<p>We are unaware of any additional relevant projects or plans which could be added to those in Table 7.17 of the May 2018 Air quality report (Volume 1, Chapter 7, doc ref 6.2.7, PINS Ref: EN010082) which lists the Proposed Schemes with the Potential for Cumulative Impacts.</p> <p>I can confirm that the relevant sites listed in the Air Quality report have subsequently been used in the in-combination effects assessment, within the HRA.</p>	The EA and Natural England have confirmed that they are unaware of any additional relevant projects or plans that could be added to Table 7.17. RCBC confirms in its response to the written questions that the relevant projects have been considered in the Habitat Regulations Assessment ('HRA').
5	Environmental Impact Assessment		

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
Q1.5.4	<p>Table 3.6 of the ES [APP-045] identifies other developments which have been considered cumulatively with the proposed development for the cumulative effects assessment (CEA).</p> <ul style="list-style-type: none"> • Confirm whether the scope of the CEA was agreed with relevant consultees. • Are Redcar and Cleveland Borough Council (RCBC) Natural England (NE) and the Environment Agency (EA) content that all relevant developments have been considered in the cumulative assessment? • With reference to paragraph 11.54 of the ES [APP-053] which records that developments within a 5km study area were considered for the cumulative assessment for the landscape and visual assessment, can the applicant confirm that no other plans/projects have been proposed since the Scoping Report was produced in February 2017 which could have cumulative landscape and visual effects upon the Proposed Development? 	<p>The Environment Agency cannot comment on the cumulative landscape and visual impacts presented in this application as these matters are outside our planning remit, however we can confirm that the list of all relevant projects for the CEA were discussed and agreed with the Environment Agency at the pre-Environmental Permit application stage and that the relevant projects have been considered within the CEA.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
Q1.5.12	<p>In paragraph L5 of Annex L [APP-081] reference is made to the detailed CEMP being agreed with Redcar and Cleveland Borough Council and the Environment Agency whilst paragraph L6 refers to the final scope also being determined by other relevant regulatory authorities. Which other authorities should be involved?</p>	<p>We advise that Natural England should be involved to provide advice on habitat improvement and avoiding flora and fauna disturbances during the construction process.</p>	<p>The Construction Environmental Management Plan ('CEMP') will be agreed with RCBC and the EA. The ES has not identified any protected species that would be disturbed by construction of the Project that would warrant consultation with Natural England in the capacity the EA suggests.</p>
7	Infrastructure		
Q1.7.5	<p>Paragraph 4.21 of the Carbon Capture Readiness (CCR) Statement [APP-039] indicates that an 8 hectare site for CCR would be required based on International Energy Agency estimates. Paragraph 4.22 goes on to estimate that based on other studies the requirement may only be 4.6 hectares. The area available for CCR at the application site is 5.4 hectares.</p> <p>Does the fact that the total area of 5.4 hectares is split between two areas create any difficulties?</p>	<p>The applicant has not provided a plan showing the proposed locations of the key CCP features therefore we are unable to provide an opinion on this matter. As outlined below, we have concerns about the size of the area for CCR.</p>	<p>Please refer to the Applicant's Comments on the Environment Agency's Written Representations (Application Document Ref: 8.36) (Section 1.1 in Table 2.1) submitted at Deadline 3 of the Examination.</p>

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
	<p>What further reassurance can be provided that this area would be adequate for CCR?</p>	<p>The Environment Agency cannot comment on the proposed CCR footprint of 5.4 ha without additional evidence that the CCP will fit into the space allocated. The information required in Annex C of the DECC CCR (2009) guidance is therefore required. Please refer to the Carbon Capture and Storage Section in our written representations letter.</p> <p>The DECC Carbon Capture Readiness 2009 guidance states: <i>Applicants should submit the required assessments demonstrating CCR as part of their initial Section 36 consent application with its supporting documentation. The assessments should not be considered supplementary information which can be submitted at a later stage. Together with the rest of the Section 36 application material, these assessments will be public documents. This guidance also explains the level of information which applicants can reasonably be asked to submit in the demonstration of CCR when applying for Section 36 consent.</i></p> <p>The information required by Annex C, DECC CCR (2009) should be submitted at the DCO application stage to feed into decisions about plot size, location and orientation.</p> <p>An approach taken at another plant involved engaging the services of Florin and Fennel, to review their technical CCR proposals and to write a report confirming whether they considered the space available and the design was feasible. The EA accepted this report as part of the DCO consultation process. This approach should be considered by the applicant.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
Q1.7.18	<p>Paragraph 4.6.6 of EN-1 sets out the need for proposals for thermal power stations to include CHP or contain evidence that the possibilities for CHP have been fully explored. This should include an audit trail of dialogue between the applicant and prospective customers. Paragraph 12 of the Guidance on Background Information to Accompany Notifications under Section 14 (1) of the Energy Act 1976 and Applications Under Section 36 of the Electricity Act 1989 (the 2006 DECC Guidance) state that if a proposal is for generation without CHP the application should provide a description of future heat requirements in the area.</p> <p>Paragraph 3.4 of the CHP Assessment [APP-038] indicates that the development of the Tees CCPP with CHP capabilities would enable the applicant to attract new energy intensive manufacturing customers to the Wilton site. Paragraph 5.2 then concludes that there are currently no immediate opportunities for the supply of heat.</p> <p>In the light of the guidance in paragraph 4.6.8 of EN-1:</p> <ul style="list-style-type: none"> • Demonstrate whether or not it is economically feasible to exploit existing regional heat markets. If it was concluded that it was not feasible to exploit existing markets was a high level economic appraisal undertaken?; • Provide an audit trail which demonstrates the dialogue which has taken place with prospective customers and a description of future heat requirements in the area; and • Explain the provisions in the proposed scheme for exploiting any potential heat demand in the future. 	<p>The Tees Valley City Deal, proposed by Tees Valley Unlimited, describes the South Tees District Heating scheme as taking industrial heat from Wilton International to supply homes, local authority buildings and a large hospital, and is currently completing the final stages of scheme feasibility. The applicant has expressed an interest in supporting the scheme. An active, central involvement in this scheme would satisfy our requirement for the applicant to consider the potential economic opportunities to supply heat to a wide search radius, as part of the Environmental Permit.</p> <p>The Environment Agency will assess the economic feasibility of the CHP proposal during the determination of the Environmental Permit.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
Q1.7.21	<p>The Environment Agency requires applications for Environmental Permits for new installations to demonstrate the use of Best Available Techniques (BAT) for various criteria including energy efficiency. The applicant states [APP-038] that:</p> <ul style="list-style-type: none"> • First BAT Test: There are currently no immediate opportunities for the supply of heat but the growth of business will require new steam raising capacity; • Second BAT Test: The new Power Plant will be CHP Ready; and • Third BAT Test: The applicant will carry out periodic reviews of opportunities for the supply of heat. <p>Does the Environment Agency consider that the three BAT Tests have been adequately addressed? If not, what additional information needs to be provided?</p>	<p>The applicant has stated that the proposed plant will be CHP Ready and have given a commitment to conduct regular reviews for CHP opportunities. The limited CHP Assessment shows that opportunities for the supply of heat are primarily dependent on the medium to long term plan to attract new energy intensive customers to the Wilton International site, and engagement with the South Tees District Heating project, currently at the feasibility study stage.</p> <p>We would encourage the applicant to actively support/ help drive the South Tees District Heating Scheme, ensuring the scheme includes their nearest neighbours at Lazenby village and Normanby, which encompass residential areas and nursing homes. The Tees Valley City Deal, proposed by Tees Valley Unlimited, describes the South Tees District Heating scheme as taking industrial heat from Wilton International to supply homes, local authority buildings and a large hospital, and is currently completing the final stages of scheme feasibility. An active, central involvement in this scheme would satisfy our requirement for the applicant to consider the potential economic opportunities to supply heat to a wide search radius, as part of the Environmental Permit.</p>	<p>The Applicant is actively involved in the South Tees District Heating Scheme and sits on the Steering Committee.</p>
8	Landscape and Visual		

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
Q1.8.1 (1)	<p>Paragraph 4.7 of the Design and Access Statement [APP-037] states that the location and height of the CCGT stacks have been fixed whilst paragraph 4.8 states that the maximum height of the co-located stacks is 75m above existing ground level. Table 11.1 of the Environmental Statement (ES) [APP-053] indicates that during the detailed design and environmental permitting processes there may be scope to reduce stack heights below 75m only if this is approved by the Environment Agency (EA). Req. 4 of the dDCO [APP-005] also specifies a maximum height for the stacks to be 75m.</p> <p>Explain how these statements reconcile with paragraph E1.9 of Annex E1 [APP-069] which states that 'the stack height of 75m is the lowest stack height at which impacts on sensitive human receptors are deemed to be acceptable and not significant on ecological receptors' and that the applicant will carry out a further stack height assessment among other assessments as part of the environmental permit process with the implication being that the height could change?</p> <p>Provide an update as to the potential to reduce the stack heights.</p>	<p>Without predetermining the application for an Environmental Permit and based on the information within this DCO application, we can agree with the statement that the ES indicates 'the stack height of 75m is the lowest stack height at which impacts on sensitive human receptors are deemed to be acceptable and not significant on ecological receptors'.</p> <p>The stack height could be reduced further, however, this may require the installation and operation of additional abatement equipment to enable the applicant to achieve the Air Emissions Limits (AELs) the Environment Agency will place on these emissions.</p> <p>It is our understanding that the DCO process sets a maximum range for the stack height based on environmental and visual impacts, with a reduced stack height being possible within that range, provided there is sufficient protection of the environment.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
Q1.8.1 (2)	<p>Whilst the location of the power station units is shown on the layout plans in Figures 5.3 and 5.4 of the ES [APP-047] and on the Works Plan [APP-013] it is not clear where in this envelope the stacks would be located. Why have the locations of the stacks not been fixed within the dDCO, for example by grid reference?</p>	<p>Changing the location of the stacks from those given in the air quality model may alter the outcome of the model and therefore the assessment of the environmental impact. The Environment Agency agrees that the location of the stacks should be set, preferably at the grid references used within the air impact assessment source data.</p> <p>Building and stack layout information, used in the Air Impact Assessment model, is provided in Figure 7.2 of the Air Quality report (Volume 1, Chapter 7 dated May 2018 document ref 6.2.7, PINS Ref: EN010082).</p> <p>The Environmental Impact Assessment will be reviewed during the determination of the Environmental Permit and if agreed, the plant will be built in accordance with that application, thereby fixing the stack locations.</p>	<p>The location of the stacks was fixed based on available layout and drawings with respect to the landscape and visual and air quality assessments [APP-049 and 053]. The locations were fixed to enable development of Photomontages. In practice, the stacks may be moved by a small amount within the Site, depending upon specific layout. In practice, this will not have a material effect on the outcome of either the assessments, as this change is unlikely to be discernible in the overall conclusions and for landscape and visual no laterally altered layout would constitute a worse case visually than what has been assessed. Of note is that for both the landscape and visual and air quality assessments, it is the stack height that is of more importance, rather than the exact location of the stacks.</p> <p>Please also refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
1.8.1 (3)	<p>What assumptions have been made in the relevant ES assessments on the location of the stacks, noting that their location is not defined within the Works Plans for dDCO? This should include confirmation of what stack locations have been assumed as part of the air quality modelling (and HRA Report) in respect of a 'worst case' scenario.</p> <p>Table 7.5 of the ES [APP-049] indicates that the diameter of the stacks would be 8m. How would the final diameter of the stacks be determined? Would this be through the environmental permitting process? Please explain why the diameter of the stacks has not been specified in the dDCO.</p>	<p>The stack diameter is specified in Table 7.5 of the Air Quality report (Volume 1, Chapter 7 dated May 2018 document ref 6.2.7, PINS Ref: EN010082) which also states that 'no sensitivity testing for stack diameter was undertaken on the basis that the diameter is optimised to avoid back pressure issues.'</p> <p>The stack diameter will be stated in the application for an Environmental Permit as part of the Air Modelling Source Data which will be assessed during the Environmental Permitting Process. The stack diameter will be assessed during the determination of the environmental permit in so far as it is one of several figures used as input data in the Air Emissions Impact Model.</p> <p>The previous power station located on this site had 8m diameter stacks and it was extremely difficult to locate a representative sample point to monitor emissions before they exit the stack. The horizontal exit from the heat recovery steam generator (HRSG) may be 8m in diameter, however, the Environment Agency questions the discharge from the 8m horizontal HRSG exit into a smaller diameter vertical stack which then discharges the emissions to atmosphere. The reduction in stack diameter may aid environmental monitoring and increase the exit velocity of emissions from the stack, which would improve dispersion. The backpressure issue is relevant.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
9	Noise and Vibration		
Q1.9.6	<p>It is proposed to retain and where necessary reinstate an acoustic wall on the southern boundary of the application site [APP-014]. Why was the efficacy of the wall not verified at pre-application stage?</p>	<p>To date we have received no consultation from the applicant with regard to the acoustic wall and cannot comment on its efficacy. As part of the application for an Environmental Permit, the applicant will be expected to demonstrate that people and the environment will be protected from any significant noise impacts associated with the operation of the proposed activities.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
Q1.9.7	<p>It is proposed to retain and where necessary reinstate an acoustic wall on the southern boundary of the application site [APP-014]. Why was the efficacy of the wall not verified at pre-application stage?</p>	<p>To date we have received no consultation from the applicant with regard to the acoustic wall and cannot comment on its efficacy.</p> <p>As part of the application for an Environmental Permit, the applicant will be expected to demonstrate that people and the environment will be protected from any significant noise impacts associated with the operation of the proposed activities.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
Q1.9.7	<p>Draft DCO Req. 20 (2)(e) requires details of any works and maintenance to the wall to be submitted to and approved by the relevant planning authority in consultation with the EA prior to commissioning whilst Req. 20 (6) states that commissioning cannot take place until any necessary works have been carried out.</p> <p>What certainty can the Applicant provide that the existing noise barrier will prove as effective in mitigating construction noise as assumed in the noise model?</p>	<p>We confirm that any noise emissions that occur during the operation of the plant will be assessed during the determination of the Environmental Permit application and this should include the efficacy of the acoustic wall as part of the noise modelling report.</p> <p>The Environmental Permit application has not yet been submitted or duly made and we have yet to begin the process of determination.</p>	<p>Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>
12	Water Environment		

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
Q1.12.1	Can the Environment Agency (EA) and the Lead Local Flood Authority confirm whether or not they are content with the scope, assessment, methodology and conclusions of the Flood Risk Assessment [APP-064]? If not, please provide details of the specific areas of concern and confirm how these should be addressed by the applicant.	<p>The site is wholly located in flood zone 1 (1 in 1000 annual probability of river or sea flooding) and is outside of the bylaw distance of the bank of a main river. Lead Local Flood Authorities ("LLFA")'s are responsible for managing local sources of flooding from surface water, groundwater and small ("ordinary") watercourses.</p> <p>We, therefore, have no comment on the adequacy of the Flood Risk Assessment in so far as it relates to the DCO as this is a matter is being considered by the LLFA.</p>	The LLFA is RCBC.
Q1.12.2 (1)	Can the EA confirm whether or not it agrees that the Water Framework Directive (WFD) information provided in the application appropriately demonstrates the Proposed Development's compliance with the requirements of the WFD?	<p>Based on the information submitted, the applicant has not fully demonstrated compliance with the requirements of the WFD.</p> <p>As part of the WFD assessment, the applicant will need to demonstrate:</p> <ul style="list-style-type: none"> • whether the proposed development will lead to a deterioration in status of any WFD waterbody • whether the proposed development will compromise the achievement of Good Status in any WFD waterbody • whether the proposed development will contribute towards a cumulative deterioration of WFD status or prevent cumulative enhancement of WFD status in any waterbody • whether the proposed development will support the delivery of measures identified in the Northumbrian River Basin Management Plan that are required to achieve waterbody objectives? <p>The WFD waterbodies in question are</p> <ul style="list-style-type: none"> • Tees estuary (S Bank) (GB103025072320) • TEES estuary (GB510302509900) <p>The WFD process involves the following stages:</p> <ul style="list-style-type: none"> • Stage 1: Pre-screening; • Stage 2: Screening; Look at each WFD quality element within each potentially impacted waterbody – potential impact on status – is further assessment required? • Stage 3: Further assessment; followed by, if required; • Stage 4: Identification and evaluation of measures; and • Stage 5 Article 4.7 considerations <p>The above should be considered for both potential WFD impacts during construction and following completion of construction once the development proposal is operational.</p>	<p>An effect on a WFD water body would only be expected where a pollutant linkage exists (i.e. a defined source was connected via a defined pathway to a defined receptor). Potential effects during construction can be avoided and minimised through standard construction management practices preventing any such pollutant linkages occurring (see also the CEMP).</p> <p>The pollutant linkage from the activities of the Project during construction and operation to the Tees Estuary and Tees Estuary South WFD water bodies more than 3 km away are considered to be very low in terms of flows from the site to the waterbody either over land or via and connecting watercourse.</p> <p>The discharge of waste water from the Site will be via the Wilton International Site surface water drainage system, which collects surface water runoff and effluent from all businesses on the site and ultimately discharges to the River Tees estuary via the Dabholm Gut. This discharge is monitored on site and operated under an existing environmental permit (Reference: 254/1813, 2005).</p> <p>Since the Project will only discharge aqueous effluents to a WFD waterbody via an existing licensed discharge that is subject to effluent quality and monitoring conditions, it is reasonable to conclude that it will not lead to any deterioration in the status of the WFD waterbody or compromise the achievement of Good Status of that waterbody. Since the effluent from the Project will be combined with other effluents from the Wilton International Site and discharged in accordance with licence conditions it is also reasonable to conclude that it will not contribute to cumulative deterioration of WFD status. In this context there are no specific measures for the Project to adopt in regard to those identified in the Northumbrian River Basin Management Plan, specifically relating to the Tees Estuary Habitat Vision (to develop and implement a blueprint of improved estuary habitats that link to Teesside tributaries within a thriving industrial heartland).</p>

Question No. (Ref. No.)	ExA's question	EA's response	Applicant's comments
Q1.12.2 (2)	Do any other matters relevant to WFD need to be taken into account?	The Tees Estuary Partnership is working to develop a Tees Estuary Strategic habitat enhancement framework that aims to deliver WFD mitigation measure objectives. We would welcome any contributions by the applicant to assist with the work of the Tees Estuary Partnership.	<p>Taking account of the development design and impact avoidance measures that would be employed, no significant adverse effects are predicted in relation to ecology – see ES, Volume 1, Chapter 9 [APP-051]. The assessment concludes that the Site has negligible ecological value for habitats and species of flora and fauna, and no significant effects are predicted. Furthermore, there would be no significant effects on off-site habitats due to changes in air quality, nitrogen deposition or acid deposition.</p> <p>No specific mitigation is therefore required, on the basis that all the effects of the Proposed Development are not significant. Notwithstanding this, the Applicant has agreed to provide biodiversity enhancement measures to the Tees Valley Wildlife Trust ('TVWT'). Please refer to the SoCG between the Applicant and TVWT for more detail (Application Document Ref: 7.1).</p> <p>No additional enhancement measures are therefore proposed.</p>
Q1.12.7	<p>In paragraph C1.59 of Annex C [APP-064] it is asserted that climate change is not considered likely to increase flood risks within the vicinity of the project site.</p> <p>Please comment further on this statement.</p>	<p>The site is wholly located in flood zone 1 (1 in 1000 annual probability of river or sea flooding) and is outside of the bylaw distance of the bank of a main river. LLFA's are responsible for managing local sources of flooding from surface water, groundwater and small ("ordinary") watercourses.</p> <p>We, therefore, have no comment on paragraph C1.59 of Annex C [APP-064] in so far as it relates to the DCO as this matter should be considered by the Applicant and the LLFA.</p>	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
Q1.12.8	What relevance, if any, does the Redcar and Cleveland Strategic Flood Risk Assessment have for the Project site?	We have no comment on the Redcar and Cleveland Strategic Flood Risk Assessment in so far as it relates to the DCO as this matter is being considered by the Lead Local Flood Authority.	Please refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.
13	Other Matters		
Q1.13.2	<p>In the light of the advice within EN-1 that where possible, applicants are encouraged to submit applications for Environmental Permits at the same time as applying for a DCO could the applicant explain their position with regard to Environmental Permits.</p> <p>Paragraph 7.4 of the Planning Statement states that the applicant has received a positive indication from the Environment Agency (EA) that an Environmental Permit for the proposed power plant will be granted. Please provide a copy of the letter dated 1 March 2017.</p> <p>Would the EA wish to comment further on whether the necessary Environmental Permit is capable of being granted?</p>	<p>The letter dated 1 March 2017 is an EA response to a pre Environmental Permit application enquiry and was issued prior to any formal consultation on the Tees CCPP project. Based on the information we had received by the 1st March 2017 (the draft stage) we considered it unlikely that such an application for an environmental permit would be refused, subject to our detailed assessment of the final permit application.</p> <p>The Environmental Permit application has not yet been submitted or duly made and we have yet to begin the process of determination. We remain unable to comment on whether the Environmental Permit is capable of being granted as this could pre-determine the outcome of the Environmental Permit application. The outcome of the Environmental Permit application will depend on the details submitted at the application stage.</p>	<p>As a specific gas turbine has not been selected, which is typical at this current stage of the DCO process, the Applicant is unable to submit an Environmental Permit application under the Environmental Permitting (England & Wales) Regulations 2010. However, our estimated timescale for submission is Q1 2019.</p> <p>Please also refer to the Applicant's Response to Examining Authority's Written Questions (Application Document Ref: 8.6) submitted at Deadline 2 of the Examination.</p>