nationalgrid | Tees CCCU Plan 5

Legend:

- Substations Commissioned
- Circuits
  - Commissioned
  - Decommissioned Group
  - Planned and Spares
- OHL 400Kv Commissioned
- OHL 275Kv Commissioned
- OHL 132Kv & Below Commissioned
- Towers Commissioned
- Buried Cable Commissioned
- Fibre Cable Commissioned
- Pilot Cable
- Pillar
- Oil Tank
- Link Box
- Gauge
- Joint Bay
- Cable Joint
- Oil Pipe
- Cooling Pipe
- Cooling Station
- RAMM
- Cable Tunnel
- Gas Operational Boundary
- Gas Site Boundary
- Trial Hole
- Vantage Point
- Block Valve
- Compressor
- LNG Site
- Multijunction
- Minimum Offtake
- Future Minimum Offtake
- Offtake
- Pressure Reduction Installation
- Pig Trap
- Terminal
- Transferred Offtake
- Aerial Marker Post
- Pipe Crossing Point
- CP Test Post
- Transformer Rectifier
- Pipeline Crossing Sleeve
  - Nitrogen Sleeve
  - Other Sleeves
- CP Protected Section Range
- Pipe Line Control Point
- Pipeline
- Named Pipeline Section
- River Crossings

Notes:

Tees CCCU Plan 5

0 0.25 0.5 Kilometers

Date: 19/03/2019
Time: 11:53:48

Page size: A3 Landscape Scale: 1: 10,000
Print by: **Holdsworth, Anne**

Hoare, Owen

From: NATS Safeguarding <NATSSafeguarding@nats.co.uk>
Sent: 06 March 2019 09:41
To: Teesside Cluster
Subject: RE: EN010103 – Teesside Cluster Carbon Capture & Usage – EIA Scoping Notification and Consultation [Our Ref: SG27678]

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours Faithfully

NATS

NATS Safeguarding

D: 01489 444687
E: NATSSafeguarding@nats.co.uk

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk

From: Teesside Cluster [mailto:TeessideCluster@planninginspectorate.gov.uk]
Sent: 22 February 2019 11:58
Subject: EN010103 – Teesside Cluster Carbon Capture & Usage – EIA Scoping Notification and Consultation

---

Dear Sir/Madam

Please see attached correspondence on the proposed Teesside Cluster Carbon Capture & Usage Project.

Please note the deadline for consultation responses is 22 March 2019 and is a statutory requirement that cannot be extended.

Kind regards,
Owen Hoare
EIA and Land Rights Advisor
Major Casework Directorate

The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol BS1 6PN
Direct Line: 0303 444 5799
Helpline: 0303 444 5000
Email: owen.hoare@planninginspectorate.gov.uk

Web: https://infrastructure.planninginspectorate.gov.uk/ (National Infrastructure Planning)
Web: www.gov.uk/government/organisations/planning-inspectorate (The Planning Inspectorate)

Twitter: @PINSgov

This communication does not constitute legal advice.
Please view our Privacy Notice before sending information to the Planning Inspectorate.

Date: 18 March 2019
Our ref: 274711
Your ref: EN010103-000010

Customer Services
Hornbeam House
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T 0300 060 3900

Ms H. Terry
Major Casework Directorate
Temple Quay House
2 The Square
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TeessideCluster@planninginspectorate.gov.uk

BY EMAIL ONLY

Dear Ms Terry

Environmental Impact Assessment Scoping consultation (Regulation 15 (4) of the EIA Regulations 2017): EN010103-000010 Application by Oil and Gas Climate Initiative (OGCI) Climate Investments Holdings LLP for an Order Granting Development Consent for the Teesside Cluster Carbon Capture & Usage Project.
Location: Redcar, South Teesside

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 22 February 2019 which we received on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Case law[1] and guidance[2] has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for this development.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Carolyn Simpson on 020 80265319. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

Yours sincerely

Carolyn Simpson
Northumbria Area Team

[1] Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)
[2] *Note on Environmental Impact Assessment Directive for Local Planning* Authorities Office of the Deputy Prime Minister (April 2004) available from http://webarchive.nationalarchives.gov.uk/+/http://www.communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/environmentalimpactassessment/noteenvironmental/

Annex A – Advice related to EIA Scoping Requirements

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework (NPPF) sets out guidance in S.174-177 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Internationally and Nationally Designated Sites

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g. designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (as amended). In addition paragraph 176 of the NPPF requires that potential Special Protection Areas, possible

Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites)
The development site is within and/or adjacent to the following designated nature conservation sites:

- Teesmouth and Cleveland Coast SSSI, Teesmouth and Cleveland Coast SPA and potential SPA (pSPA), Teesmouth and Cleveland Coast Ramsar and potential Ramsar (pRamsar).

The development site is also within 15 km of:

- Northumbria Coast SPA and Ramsar site, Durham Coast SAC and North York Moors SAC and SPA.

- Further information on the SSSI's and their special interest features can be found at www.magic.gov. The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

- European site conservation objectives are available on our internet site: http://publications.naturalengland.org.uk/category/6490068894089216.

2.3 Regionally and Locally Important Sites
The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 (as amended)
The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey

results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation.

2.5 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration…in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).

Local Record Centre (LRC) for Teesside please contact:

Environmental Records Information Centre North East (ERICNE)
Great North Museum – Hancock
Barras Bridge
Newcastle upon Tyne
NE2 4PT
Telephone: 0191 2085158
Website: www.ericnortheast.org.uk

3. Landscape Character

Landscape and visual impacts
Parts of the development are within/or adjacent to the National Character Area of the Tees Lowlands. Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application. The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

4. Access and Recreation

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Rights of Way, Access land and Coastal access
The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 170 of the NPPF. We also recommend that soils should be considered in the context of the sustainable use of

land and the ecosystem services they provide as a natural resource, as also highlighted in paragraph 170 of the NPPF.

6. Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation

The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment by 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 170d), which should be demonstrated through the ES.

8. Cumulative and in-combination effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

a. existing completed projects;
b. approved but uncompleted projects;
c. ongoing activities;
d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Ancient Woodland – addition to the S41 NERC Act paragraph

The S41 list includes six priority woodland habitats, which will often be ancient woodland, with all ancient semi-natural woodland in the South East falling into one or more of the six types.

Information about ancient woodland can be found in Natural England's standing advice http://www.naturalengland.org.uk/Images/standing-advice-ancient-woodland_tcm6-32633.pdf.

Ancient woodland is an irreplaceable resource of great importance for its wildlife, its history and the contribution it makes to our diverse landscapes. Local authorities have a vital role in ensuring its

conservation, in particular through the planning system. The ES should have regard to the requirements under the NPPF (Para. 175)[3] which states:

When determining planning applications, local planning authorities should apply the following principles:

a) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

[3] National Planning Policy Framework (February 2019) from the Ministry of Housing, Communities and Local Government available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

Hoare, Owen

From: Leighton Matthew <Matt.Leighton@networkrail.co.uk> on behalf of Town Planning LNE <TownPlanningLNE@networkrail.co.uk>
Sent: 06 March 2019 15:37
To: Teesside Cluster
Subject: Ref EN010103-000010 - Teesside Cluster Carbon Capture & Usage Project

FAO – Hannah Terry
Ref – EN010103-000010
Proposal – Scoping consultation
Location – Teesside Cluster Carbon Capture & Usage Project

Thank you for your letter of 22 February 2019 providing Network Rail with an opportunity to comment on the abovementioned scoping consultation.

With reference to the protection of the railway, the Environmental Impact Assessment should consider issues that would impact on the operational railway in the vicinity of proposed works.

The assessment should consider the impact of the scheme on operational railway safety from the installation and operation of the proposed development including the network of pipes (particularly where they are to be installed underneath or within close proximity of the railway).

The EIA should also consider the impact of the scheme upon the railway infrastructure in the transport assessments, particularly where construction and operation routes (for example HGV haulage routes) include railway assets such as bridges and level crossings. Additionally, consideration should be given to how the railways can be used toward sustainable transport of good and materials (during construction and operation) and employment.

I hope that the above is useful to you. If you require any further information or clarification in respect of the above, please let me know.

Kind regards

Matt Leighton
Town Planning Technician | Property
Network Rail
George Stephenson House | Toft Green |York |YO1 6JT
www.networkrail.co.uk/property

****
****

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Northumbrian Water Limited
Leat House
Pattinson Road
Washington
Tyne and Wear
NE38 8LB

Direct Line: 0191 419 6776
E-mail: Katherine.dobson@nwl.co.uk
Your Ref: EN010103-000010

21st March 2019

FAO: Ms Hannah Terry

Dear Ms Terry,

Subject: Teesside Carbon Capture and Usage Project Pre-Application EIA Scoping Opinion

Thank you for consulting Northumbrian Water on the above proposed development.

In making our response to the local planning authority / Planning Inspectorate Northumbrian Water will assess the impact of the proposed development on our assets and assess the capacity within Northumbrian Water's network to accommodate and treat the anticipated flows arising from the development. We do not offer comment on aspects of planning applications that are outside of our area of control.

We have read the Environmental Impact Assessment (EIA) Scoping Report and note the intentions of the proposed development to create a 'full chain' carbon capture, utilisation and storage ('CCUS') project, comprising a combined cycle gas turbine electricity generating station with a capacity of up to 2,000 megawatts output (gross), cooling water, gas and electricity grid connections, carbon capture and compression equipment, including booster station, low-pressure CO2 pipeline connections to industrial users ('CO2 gathering network') and a high-pressure CO2 pipeline for onward transport of CO2 to a geological storage site in the North Sea.

Whilst not all strictly within the remit of the intended content of the EIA, following internal consultation with key stakeholders within our organisation, we have a number of comments to make as follows:

- Our major treatment works at Bran Sands could accept domestic and sanitary flows from the proposed development.

- We would potentially have concerns about receiving discharged water / effluent resulting from your processes. Cooling water / blowdown effluent can be significant in volume, heat load and salinity which can detrimentally impact and inhibit our treatment processes.

- Regarding the proposed transport corridors - particularly for CO2 - we would have potential concerns about preferred corridor routes that will lie close to any of our assets (including our off-site assets such as potable and raw water mains as well as the main Bran Sands operational facility). The developers will need to consult with us regarding our easements, our operational access requirements, liability on both sides and all health & safety implications at both the construction and operational stages of the proposed development. The justification for this is that we need to maintain full access to all of our assets for operations and maintenance. We must also ensure our assets are safeguarded against potential hazardous events, and although we note that the Scoping Report states that the Pipeline Safety Regulations 1996 does not consider an on-shore high pressure CO2 pipeline

is a Major Accident Hazard Pipeline (MAHP) we see that the design intentions will treat it as such and we would also certainly assume worst case scenarios at that level where either and / or both of our assets could be potentially detrimentally affected.

- In light of the above comment, it would be useful for the developer / their agents to provide us with a shape file of the proposed corridor routes, particularly at the point at which they determine alternative routes (as referred to in paragraph 4.2) in order that we can assess this on our GIS records against locations of our existing assets.

- We note the scope of assessment proposed for the Hydrology and Water Resources section of the EIA. We expect (as per paragraph 6.38) that the potential impacts of discharged water / effluent will be fully assessed and discussions held with Northumbrian Water where any proposals seek to consider discharge of processed water into our network for the potential impact on our facilities / operations.

- We note the proposal to scope "Major Accidents or Disaster Vulnerability" out of the EIA at paragraphs 8.4 to 8.10. We note this issue will be assessed through other legislative mechanisms outside of the EIA process, however we would expect to see worst case scenarios e.g. fire or blast event, identified as part of the consideration of impact and significance assessment within the EIA.

To conclude, in light of the above comments we request early consultation and dialogue with the developer to identify appropriate mitigation solutions.

We hope the above comments are of benefit in reviewing the Scoping Report. We request to be kept informed as the Development Consent Order progresses through the system and to have opportunity for further consultation. We request that the developer / applicants make contact with Northumbrian Water to commence dialogue regarding the proposals as a key stakeholder and land owner.

Yours Sincerely

Katherine Dobson
Planning Team Leader
Developer Services

cc. David Mitchell Wastewater Treatment Manager Southern Operations
Stephen Coverdale Bran Sands Plant Engineer
Trevor Hobb Wholesale Account Manager
Iain Wilson Treatment Works Manager Bran Sands
Andrew Bradley Estates Manager

Public Health England

Environmental Hazards and Emergencies Department
Centre for Radiation, Chemical and Environmental Hazards (CRCE)
Seaton House
City Link
London Road
Nottingham NG2 4LA

nsipconsultations@phe.gov.uk

www.gov.uk/phe

Your Ref: EN010103-000010
Our Ref: CIRIS 49655

Ms Hannah Terry
Senior EIA & Land Rights Adviser
The Planning Inspectorate
Major Casework Directorate
Temple Quay House
2 The Square
Bristol BS1 6PN

21st March 2019

Dear Ms Terry

Teesside Cluster Carbon Capture & Usage Project
Scoping Consultation Stage

Thank you for including Public Health England (PHE) in the scoping consultation phase of the above application. Advice offered by PHE is impartial and independent.

PHE exists to protect and improve the nation's health and wellbeing and reduce health inequalities; these two organisational aims are reflected in the way we review and respond to Nationally Significant Infrastructure Project (NSIP) applications.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Having considered the submitted scoping report, we wish to make the following specific comments and recommendations:

Environmental Public Health

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be covered elsewhere in the Environmental Statement (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that

public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made the promoters should fully explain and justify their rationale in the submitted documentation.

Recommendation

Although the proposal features a carbon capture and storage system, it is likely that the three-proposed gas-fired turbines will still release other pollutants to atmosphere. Reducing public exposures to pollutants such as particulate matter and nitrogen dioxide, even when air quality standards are not exceeded, is expected to have public health benefits. We support approaches which minimise or mitigate public exposure to air pollutants, address inequalities (in exposure), and maximise co-benefits (such as physical exercise) and encourage their consideration during development design, environmental and health impact assessment, and development consent.

We support approaches which minimise or mitigate public exposure to air pollutants, address inequalities (in exposure), maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

The applicant notes that the development will require electricity distribution infrastructure to be reviewed and updated. The details of the siting of any new infrastructure are not yet finalised. We would request that the ES clarifies the site of any new distribution infrastructure, and if necessary ensure that an adequate assessment of the possible impacts is undertaken and included in the ES.

Human Health and Wellbeing

This section of our scoping response, identifies the wider determinants of health and wellbeing we expect the ES to address, to demonstrate whether they are likely to give rise to significant effects. We have focused our approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements. The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

Having considered the submitted scoping report, we wish to make the following specific comments and recommendations:

Methodology

Population and human health

The scoping report does not identify a definition of health. The scoping report should accept the broad definition of health proposed by the World Health Organisation (WHO) and also include specific reference to mental health within the definition of health.

The scoping report does not identify any aspects to be scoped out of the assessment for population and human health. The list of wider determinants to be scoped into the ES, by the applicant is therefore unclear.

Recommendation

Table 1 lists the wider determinants, as a minimum, that should be scoped into an assessment of effects on population and human health

Table 1 – Health and wellbeing wider determinants

Health and wellbeing themes			
Access	**Traffic and Transport**	**Socioeconomic**	**Land Use**
Wider determinants of health and wellbeing			
- Access to local public and key services and facilities - Access to good-quality affordable housing - Access to healthy affordable food - Access to the natural environment - Access to the natural environment within the urban environment - Access to leisure, recreation and physical activity opportunities within the urban and natural environments	- Accessibility - Access to/by public transport - Opportunities for/access by cycling and walking - Links between communities - Community severance - Connections to jobs - Connections to services, facilities and leisure opportunities	- Employment opportunities including training opportunities - Local business activity - Regeneration - Tourism and leisure industries - Community/social cohesion and access to social networks - Community engagement	- Land use in urban and/or rural settings - Quality of urban and natural environments

Should the applicant wish to scope out any of these determinants the PEIR must provide adequate justification in accordance with the Planning Inspectorate Advice Note Seven (Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements).

Vulnerable populations

An approach to the identification of vulnerable populations has not been provided and does not make links to the list of protected characteristics within an Equality Impact Assessment (EqIA). The impacts on health and wellbeing and health inequalities of the scheme may have particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. The ES and any EqIA should not be completely separated.

Recommendation
The EIA should clearly identify the range of vulnerable populations that have been considered within the assessment

The assessments and findings of the ES and any EqIA should be cross referenced between the two documents, particularly to ensure the comprehensive assessment of potential impacts for health and inequalities and where resulting mitigation measures are mutually supportive.

Physical activity and active travel / access to open space
The scoping report does not identify how non-motorised users (NMU) will be impacted but does mention the loss or change in formal Public Rights of Way (PRoW), open space and the existing road network.

Active travel forms an important part in helping to promote healthy weight environments and as such it is important that any changes have a positive long term impact where possible. Changes to NMU routes have the potential to impact on usage, create displacement to other routes and potentially lead to increased road traffic collisions.

It is important to ensure that any impact on tranquillity in any locally-valued open spaces is considered both during construction and during operation.

Recommendations
The overall risk to NMU and impact on active travel should be considered on a case-by-case basis, taking into account, the number and type of users and the effect that the construction / demolition vehicle movements will have on their journey and safety.
Any traffic counts and assessment should also, as far as reasonably practicable, identify informal routes used by NMU or potential routes used due to displacement.
The final ES should identify the temporary traffic management system with specific reference to NMU. This may be incorporated within the Code of Construction Practice or transport plan.

The scheme should identify any additional opportunities to contribute to improved infrastructure provision for active travel and physical activity. This would include employee travel plans during the construction/demolition and operational phase

Yours sincerely

For and on behalf of Public Health England
nsipconsultations@phe.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

General approach

The EIA should give consideration to best practice guidance such as the Government's Good Practice Guide for EIA[1]. It is important that the EIA identifies and assesses the potential public health impacts of the activities at, and emissions from, the installation. Assessment should consider the development, operational, and decommissioning phases.

It is not PHE's role to undertake these assessments on behalf of promoters as this would conflict with PHE's role as an impartial and independent body.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, EIA should start at the stage of site and process selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES[2].

The following text covers a range of issues that PHE would expect to be addressed by the promoter. However this list is not exhaustive and the onus is on the promoter to ensure that the relevant public health issues are identified and addressed. PHE's advice and recommendations carry no statutory weight and constitute non-binding guidance.

Receptors

The ES should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land. Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

Impacts arising from construction and decommissioning

Any assessment of impacts arising from emissions due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the promoter to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential impact on health from emissions (point source, fugitive and traffic-related). An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The promoter should ensure that there are robust mechanisms in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

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[1] Environmental Impact Assessment: A guide to good practice and procedures - A consultation paper; 2006; Department for Communities and Local Government. Available from: http://webarchive.nationalarchives.gov.uk/20100410180038/http:/communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/environmentalimpactassessment/

[2] DCLG guidance, 1999 http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf

Emissions to air and water

Significant impacts are unlikely to arise from installations which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding emissions in order that the EIA provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these:

- should include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary
- should encompass all pollutants which may be emitted by the installation in combination with all pollutants arising from associated development and transport, ideally these should be considered in a single holistic assessment
- should consider the construction, operational, and decommissioning phases
- should consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts
- should fully account for fugitive emissions
- should include appropriate estimates of background levels
- should identify cumulative and incremental impacts (i.e. assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e. rail, sea, and air)
- should include consideration of local authority, Environment Agency, Defra national network, and any other local site-specific sources of monitoring data
- should compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as UK Air Quality Standards and Objectives and Environmental Assessment Levels)
    - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (a Tolerable Daily Intake or equivalent). Further guidance is provided in Annex 1
    - This should consider all applicable routes of exposure e.g. include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion
- should identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the EIA should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure.

Additional points specific to emissions to air
When considering a baseline (of existing air quality) and in the assessment and future monitoring of impacts these:

- should include consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)
- should include modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst case conditions)
- should include modelling taking into account local topography

Additional points specific to emissions to water
When considering a baseline (of existing water quality) and in the assessment and future monitoring of impacts these:

- should include assessment of potential impacts on human health and not focus solely on ecological impacts
- should identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; recreational waters; sewers; geological routes etc.)
- should assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- should include consideration of potential impacts on recreational users (e.g. from fishing, canoeing etc) alongside assessment of potential exposure via drinking water

Land quality
We would expect the promoter to provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report.
Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed[3] and the potential impact on nearby receptors and control and mitigation measures should be outlined.
Relevant areas outlined in the Government's Good Practice Guide for EIA include:

- effects associated with ground contamination that may already exist
- effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination
- impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc.

Waste
The EIA should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).
For wastes arising from the installation the EIA should consider:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

[3] Following the approach outlined in the section above dealing with emissions to air and water i.e. comparing predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as Soil Guideline Values)

Other aspects
Within the EIA PHE would expect to see information about how the promoter would respond to accidents with potential off-site emissions e.g. flooding or fires, spills, leaks or releases off-site. Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

The EIA should include consideration of the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations 2009: both in terms of their applicability to the installation itself, and the installation's potential to impact on, or be impacted by, any nearby installations themselves subject to the these Regulations.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report[4], jointly published by Liverpool John Moores University and the HPA, examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: "Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible." PHE supports the inclusion of this information within EIAs as good practice.

Electromagnetic fields (EMF)

This statement is intended to support planning proposals involving electrical installations such as substations and connecting underground cables or overhead lines. PHE advice on the health effects of power frequency electric and magnetic fields is available in the following link:

https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields

There is a potential health impact associated with the electric and magnetic fields around substations, and power lines and cables. The field strength tends to reduce with distance from such equipment.

The following information provides a framework for considering the health impact associated with the electric and magnetic fields produced by the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

Policy Measures for the Electricity Industry

The Department of Energy and Climate Change has published a voluntary code of practice which sets out key principles for complying with the ICNIRP guidelines:

[4] Available from: http://www.cph.org.uk/wp-content/uploads/2012/08/health-risk-perception-and-environmental-problems--summary-report.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

Companion codes of practice dealing with optimum phasing of high voltage power lines and aspects of the guidelines that relate to indirect effects are also available:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vcop_microshocks.pdf

Exposure Guidelines

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect was published by one of PHE's predecessor organisations (NRPB) in 2004 based on an accompanying comprehensive review of the scientific evidence:-

http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, Government policy is that the ICNIRP guidelines are implemented in line with the terms of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publichealth/Healthprotection/DH_4089500

Static magnetic fields

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

Power frequency electric and magnetic fields

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m^{-1} (kilovolts per metre) and 100 μT (microtesla). The reference level for magnetic fields changes to 200 μT in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths

above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects.

Long term effects

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE)

SAGE was set up to explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government:

http://www.emfs.info/policy/sage/

SAGE issued its First Interim Assessment in 2007, making several recommendations concerning high voltage power lines. Government supported the implantation of low cost options such as optimal phasing to reduce exposure; however it did not support not support the option of creating corridors around power lines on health grounds, which was considered to be a disproportionate measure given the evidence base on the potential long term health risks arising from exposure. The Government response to SAGE's First Interim Assessment is available here:

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

The Government also supported calls for providing more information on power frequency electric and magnetic fields, which is available on the PHE web pages (see first link above).

Ionising radiation

Particular considerations apply when an application involves the possibility of exposure to ionising radiation. In such cases it is important that the basic principles of radiation protection recommended by the International Commission on Radiological Protection[5] (ICRP) are followed. PHE provides advice on the application of these recommendations in the UK. The ICRP recommendations are implemented in the Euratom Basic Safety Standards[6] (BSS) and these form the basis for UK legislation, including the Ionising

[5] These recommendations are given in publications of the ICRP notably publications 90 and 103 see the website at http://www.icrp.org/
[6] Council Directive 96/29/EURATOM laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation.

Radiation Regulations 1999, the Radioactive Substances Act 1993, and the Environmental Permitting Regulations 2016.

PHE expects promoters to carry out the necessary radiological impact assessments to demonstrate compliance with UK legislation and the principles of radiation protection. This should be set out clearly in a separate section or report and should not require any further analysis by PHE. In particular, the important principles of justification, optimisation and radiation dose limitation should be addressed. In addition compliance with the Euratom BSS and UK legislation should be clear.

When considering the radiological impact of routine discharges of radionuclides to the environment PHE would expect to see a full radiation dose assessment considering both individual and collective (population) doses for the public and, where necessary, workers. For individual doses, consideration should be given to those members of the public who are likely to receive the highest exposures (referred to as the representative person, which is equivalent to the previous term, critical group). Different age groups should be considered as appropriate and should normally include adults, 1 year old and 10 year old children. In particular situations doses to the fetus should also be calculated[7]. The estimated doses to the representative person should be compared to the appropriate radiation dose criteria (dose constraints and dose limits), taking account of other releases of radionuclides from nearby locations as appropriate. Collective doses should also be considered for the UK, European and world populations where appropriate. The methods for assessing individual and collective radiation doses should follow the guidance given in 'Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012 [8].It is important that the methods used in any radiological dose assessment are clear and that key parameter values and assumptions are given (for example, the location of the representative persons, habit data and models used in the assessment).

Any radiological impact assessment should also consider the possibility of short-term planned releases and the potential for accidental releases of radionuclides to the environment. This can be done by referring to compliance with the Ionising Radiation Regulations and other relevant legislation and guidance.

The radiological impact of any solid waste storage and disposal should also be addressed in the assessment to ensure that this complies with UK practice and legislation; information should be provided on the category of waste involved (e.g. very low level waste, VLLW). It is also important that the radiological impact associated with the decommissioning of the site is addressed. Of relevance here is PHE advice on radiological criteria and assessments for land-based solid waste disposal facilities[9]. PHE advises that assessments of radiological impact during the operational phase should be performed in the same way as for any site authorised to discharge radioactive waste. PHE also advises that assessments of radiological impact during the post operational phase of the facility should consider long timescales (possibly in excess of 10,000 years) that are appropriate to the long-lived nature

[7] HPA (2008) Guidance on the application of dose coefficients for the embryo, fetus and breastfed infant in dose assessments for members of the public. Doc HPA, RCE-5, 1-78, available at https://www.gov.uk/government/publications/embryo-fetus-and-breastfed-infant-application-of-dose-coefficients

[8] The Environment Agency (EA), Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency, Health Protection Agency and the Food Standards Agency (FSA).
Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296390/geho1202bklh-e-e.pdf

[9] HPA RCE-8, Radiological Protection Objectives for the Land-based Disposal of Solid Radioactive Wastes, February 2009

of the radionuclides in the waste, some of which may have half-lives of millions of years. The radiological assessment should consider exposure of members of hypothetical representative groups for a number of scenarios including the expected migration of radionuclides from the facility, and inadvertent intrusion into the facility once institutional control has ceased. For scenarios where the probability of occurrence can be estimated, both doses and health risks should be presented, where the health risk is the product of the probability that the scenario occurs, the dose if the scenario occurs and the health risk corresponding to unit dose. For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered. The level of detail and sophistication in the modelling should also reflect the level of hazard presented by the waste. The uncertainty due to the long timescales means that the concept of collective dose has very limited use, although estimates of collective dose from the ‘expected’ migration scenario can be used to compare the relatively early impacts from some disposal options if required.

Annex 1

Human health risk assessment (chemical pollutants)

The points below are cross-cutting and should be considered when undertaking a human health risk assessment:

- The promoter should consider including Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES
- Where available, the most recent United Kingdom standards for the appropriate media (e.g. air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants. Where UK standards or guideline values are not available, those recommended by the European Union or World Health Organisation can be used
- When assessing the human health risk of a chemical emitted from a facility or operation, the background exposure to the chemical from other sources should be taken into account
- When quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach[10] is used

[10] Benford D et al. 2010. Application of the margin of exposure approach to substances in food that are genotoxic and carcinogenic. Food Chem Toxicol 48 Suppl 1: S2-24

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Our Ref: R/2019/0124/DCO
Your Ref:
Contact: Mr D Pedlow
Date: 19 March 2019

Dear Sir/Madam

PROPOSAL: **APPLICATION FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE TEESSIDE CLUSTER CARBON CAPTURE & USAGE PROJECT**
LOCATION: **LAND AT THE FORMER SSI SITE FOR GENERATING STATION (MAIN SITE) INCLUDING ASSOCIATED GAS, ELECTRICAL, WATER, CO2 AND TRANSPORT CONNECTION CORRIDORS**
APPLICANT: **OGCI CLIMATE INVESTMENTS**

I refer to the Scoping Report received by Redcar and Cleveland Borough Council on the 22nd February 2019 in connection with the Teesside Cluster Carbon Capture & Usage Project (Ref EN010103-000010).

Please find below the responses that have been received from internal consultees within the Council.

Redcar and Cleveland Borough Council Conservation Advisor

Para 2.22 (Cultural Heritage) identifies listed buildings with 2km of the main site. It is also clear that the Archaeology & Cultural Heritage section from Para 6.121 onwards has taken the potential impacts of the wider proposal into account so the geographical scope of assessment is comprehensive. Potential impacts upon setting have been considered, as illustrated by para 6.124 which states that the setting of each asset and the potential for the development to impact on those settings will be assessed.

Para 6.125 states that heritage assets will be cross referenced against base maps, which is necessary due to the extensive nature of the proposal site when including the corridors. It would be helpful to know what form the connection corridors are likely to take, although it is assumed that they will be underground.

Para 6.129 indicates that an assessment of significance will be carried out for each heritage asset (designated or non-designated) with the potential to be impacted by the proposal. Whilst the values to be assessed are stated as being artistic, archaeological, architectural or historic, it may be better to instead use the values outlined in Historic England's Conservation Principles (2008), which is referred to in Para 6.126.

Redcar and Cleveland Borough Council Development Engineers

The Council is developing proposals in the highlighted area to improve the capacity and resilience of the highway network, to increase connectivity between communities and to employment areas as follows:- Improvements to the A174 Greystones Roundabout, A1085 Westgate Roundabout and A66 Tees Dock Road Roundabout.

- *Improvements to A174 Eston Road, Lazenby junction, A174 High Street, Lazenby junction and A174 northside service road.*
- *Improvements to the A174 Kirkleatham Roundabout.*
- *Construction of a dual carriageway between the A1085 Dormanstown Roundabout & A174 Kirkleatham Roundabout with new access into Wilton International.*

These proposals are yet to be adopted as Council policy.

The longer term travel patterns of employees should be considered within the development of the site to encourage more sustainable behaviours. Investment in travel plan related infrastructure should be made to reduce dependency on the private car from day 1, within the context of travel to the wider STDC area.

The Transport Assessment will be produced and cover the traffic impacts.

Redcar and Cleveland Borough Council Local Lead Flood Authority

The LLFA have reviewed the information submitted and can confirm that Kinkerdale Beck, Dabholme Beck, The Mill Race, Mill Lade, Ash Gill, Mains Dike and the Fleet have all had issue with flooding and flooded both residential areas as well as a number of businesses within the corridors identified in the planning application. There are also a number of structures and perched pipes that prevent the efficient flow/discharge of water throughout these watercourse named above.

These works may provide the opportunity to look to improve these issues should works pass through/adjacent to these corridors. The Dabholm Gut area is the primary area for flooding and existing infrastructure restrictions that need to be addressed with landowners under their riparian ownership.

The LLFA are currently undertaking investigations with primary landowners in these corridors as well as the EA and NWL to undertake possible solutions to these issues.

The applicant would be required to submit a project specific Flood Risk Assessment (FRA). In addition to the statutory requirements of an FRA, the LLFA would also expect the FRA to fully consider the potential impacts of the Gas Connection, Electrical Connection, Onshore CO2 Transport Pipeline, CO2 Gathering Network and Water Connection Corridors.

The LLFA would expect the applicant to submit a Surface Water Drainage Strategy and Construction Phasing Programme. Furthermore, the applicant would also be required to apply and have approved by the LLFA any Ordinary Water Consents which may be necessary.

Redcar and Cleveland Borough Council Heritage Manager

No objection

Redcar and Cleveland Borough Council Environmental Protection (Contaminated Land)

No objection

Redcar and Cleveland Borough Council Environmental Protection (Nuisance)

Air Quality

No objections to the scope of the assessment.

Noise & Vibration

Baseline - The scoping report states that baseline noise monitoring requirements will be agreed in advance with RCBC, however the report suggests that monitoring will be undertaken in close proximity to NSRs at both weekend and weekday times, ideally (subject to adequate security and access) over a minimum five day unmanned monitoring period (Thursday to Monday suggested)

This department suggests that monitoring should be carried out over a seven day period and to include night time monitoring over a representative period. Should weather conditions adversely change during the monitoring period then further baseline measurements will need to be carried out.

Operational Noise - Should any plant items be changed by the client that could have an adverse impact on noise levels then further noise prediction modelling will be required to be carried out.

Redcar and Cleveland Borough Council Public Rights of Way Officer

The public rights of way in the area have been identified in paragraph 6.94 of the Scoping Document. Works undertaken need to maintain the availability of these PROWs for use by the public. Any works that would have an impact on the availability of the PROWs would need to be authorised in advance.

Redcar and Cleveland Borough Council Routes to Employment

The Teesside Cluster Carbon Capture and Usage Project is a strategic project for the borough which has the potential to transform not just the local economy but that of the wider Tees Valley and position the UK as a global leader in carbon capture and usage technology.

There is a significant, world leading cluster of petrochemical, process and energy related industry in Redcar & Cleveland; all high energy users that are challenged to make significant reductions in carbon emissions to meet the targets set out in the Paris agreement. This project has the potential to facilitate that reduction on a scale that is economically viable for the project but also worthwhile for the UK's carbon reduction programme. The result will support industry in the area to become more sustainable going forward and has the potential to bring new large-scale industrial investment to the region, attracted by the ability to "plug and go" into an existing carbon capture and usage network. The vision to make the Tees Valley a low carbon economy is set out as one of the key aims in the area's Strategic Economic Plan.

This area's unique mixture of geography and economy with existing pipeline connections and subsea caverns for utilisation and storage are key to the success of this project which in turn is key to the economic success of the area. The industry cluster it will serve offer high value jobs which must be sustained and attracted to the area if it is to bridge the performance gap with the rest of the UK and will help create a vibrant supply chain of local SMEs.

We are wholly supportive of this project from an economic development perspective and would urge for it to be considered favourably.

Conclusion

With regard to the conclusions reached in section 8 of the Scoping Report, it is agreed that any EIA submitted for the proposed development will be required to contain the topics set out in section 8.1 of the report.

Yours faithfully

Mr D Pedlow
Principal Planning Officer

Teesside Cluster Carbon Capture and Usage Project – proposed development by OCGI Climate Investments LLP

Royal Mail Group Limited comments on information to be provided in applicant's Environmental Statement

Introduction

Reference the letter from PINS to Royal Mail dated 22 February 2019 requesting Royal Mail's comments on the information that should be provided in OCGI Climate Investments LLP's Environmental Statement.

Royal Mail's consultants BNP Paribas Real Estate have reviewed the applicant's Scoping Report dated February 2019, scrutinising the proposed development and its potential impacts on Royal Mail's business interests.

Royal Mail– relevant information

Under section 35 of the Postal Services Act 2011 (the "Act"), Royal Mail has been designated by Ofcom (the independent communications regulator) as a provider of the Universal Postal Service.

Royal Mail is the only such provider in the United Kingdom. Its services are regulated by the Communications Industry Regulator, Ofcom.

In respect of its postal services functions, section 29 of the Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

By sections 30 and 31 of the Act (read with sections 32 and 33) there is a set of minimum standards for Universal Service Providers, which Ofcom must secure. The conditions imposed by Ofcom reflect those standards. There is, in effect, a statutory obligation on Royal Mail to provide at least one collection from letterboxes and post offices six days a week and one delivery of letters to all 29 million homes and businesses in the UK six days a week (five days a week for parcels). Royal Mail must also provide a range of "end to end" services meeting users' needs, e.g. First Class, Second Class, Special Delivery by 1 pm, International and Redirections services.

Royal Mail is under some of the highest specification performance obligations for quality of service in Europe. Its performance of the Universal Service Provider obligations is in the public interest and should not be affected detrimentally by any statutorily authorised project.

Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network.

Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.

Potential impacts of the scheme on Royal Mail

Royal Mail has eight operational facilities within seven miles of the proposed DCO boundary as listed below:

Site Name	Address	Distance from project location in miles
REDCAR DELIVERY OFFICE	MALMO COURT REDCAR TS10 5RD	0.2
HARTLEPOOL VEHICLE PARK	GREEN STREET HARTLEPOOL TS24 7LD	3.0
MIDDLESBROUGH DELIVERY OFFICE	2 CANNON PARK WAY MIDDLESBROUGH TS1 1AA	3.7
CLEVELAND PARCELFORCE DEPOT	UNIT 4-6 RALEIGH COURT MIDDLESBROUGH TS2 1RA	3.9
STOCKTON ON TEES DELIVERY OFFICE	ORDE WINGATE WAY STOCKTON ON TEES TS19 0BJ	4.2
MIDDLESBROUGH VEHICLE PARK	2 CANNON PARK WAY MIDDLESBROUGH TS1 1JU	4.8
GUISBOROUGH DELIVERY OFFICE	MORGAN DRIVE GUISBOROUGH TS14 7GB	5.2
COULBY NEWHAM DELIVERY OFFICE	RIDGEWAY MIDDLESBROUGH TS8 0UD	6.8

In exercising its statutory duties, Royal Mail vehicles use all of the adjacent local roads on a daily basis. Any additional congestion on these roads during the construction phase has the potential to significantly disrupt Royal Mail's operations.

Royal Mail therefore wishes to ensure the protection of its future ability to provide an efficient mail sorting and delivery service to the public in accordance with its statutory obligations which may be adversely affected by the construction and operation of this proposed scheme.

Royal Mail's comments on information that should be provided in the applicant's Environmental Statement

Royal Mail asks that OCGI Climate Investments LLP notes the above and addresses the following comments / requests:

1. Royal Mail requests that the ES includes information on the needs of major road users (such as Royal Mail) and acknowledges the requirement to ensure that major road users are not disrupted though full consultation at the appropriate time in the DCO and development process.

2. The ES should include detailed information on the construction traffic mitigation measures that are proposed to be implemented, including a draft Construction Traffic Management Plan (CTMP).

3. Royal Mail requests that it is fully pre-consulted by OCGI Climate Investments LLP on any proposed road closures / diversions/ alternative access arrangements, hours of working and the content of the CTMP. The ES should acknowledge the need for this consultation with Royal Mail and other relevant local businesses / occupiers.

Royal Mail is able to supply the applicant with information on its road usage / trips if required.

Should PINS or OCGI Climate Investments LLP have any queries in relation to the above then in the first instance please contact Holly Trotman *(holly.trotman@royalmail.com)* of Royal Mail's Legal Services Team or Daniel Parry-Jones *(daniel.parry-jones@realestate.bnpparibas)* of BNP Paribas Real Estate.

Planning Services
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St Nicholas Street
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YO11 2HG
Planning Services Manager
Mr D Walker

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SCARBOROUGH BOROUGH COUNCIL

The Planning Inspectorate (Hannah Terry)
Major Casework Directorate
Temple Quay House
2 The Square
Bristol
BS1 6PN

Your Ref
Our Ref 19/00489/OA

27 February 2019

Dear Sir or Madam

Proposal Scoping consultation (EN010103-000010)
Site Address Teesside Cluster Carbon Capture & Usage Project

I refer to the above consultation which was received at this office on 22 February 2019.

No observations.

If you require any further assistance please contact me at the above address.

Yours faithfully

D Walker

Mr D Walker
Planning Services Manager

Hoare, Owen

From: Stephen Vanstone <Stephen.Vanstone@thls.org>
Sent: 20 March 2019 12:37
To: Teesside Cluster
Cc: Trevor Harris; Russell Dunham; harbourmaster@pdports.co.uk; chris.stocks@pdports.co.uk
Subject: FW: EN010103 – Teesside Cluster Carbon Capture & Usage – EIA Scoping Notification and Consultation
Attachments: Letter_to_stat_cons_Scoping_&_Reg_11_Notification.doc.pdf

Good afternoon Hannah,

I note that the proposed development area includes areas within the River Tees and other areas within the jurisdiction of PD Teesport Ltd.. Therefore, Trinity House advise that any marine works proposed below mean high water springs should be fully assessed within a Marine Navigation Risk Assessment, provided as part of the Environmental Statement.

PD Teesport Ltd should be consulted directly concerning the above, as well as any proposed risk mitigation measures relating to these marine works.

Kind regards,

Steve Vanstone
Navigation Services Officer

Navigation Directorate
Trinity House
Trinity Square
Tower Hill
London
EC3N 4DH

Tel: 0207 4816921
E-mail: stephen.vanstone@thls.org

From: Teesside Cluster [mailto:TeessideCluster@planninginspectorate.gov.uk]
Sent: 22 February 2019 12:06
To: Navigation
Cc: Thomas Arculus
Subject: EN010103 – Teesside Cluster Carbon Capture & Usage – EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see attached correspondence on the proposed Teesside Cluster Carbon Capture & Usage Project.

Please note the deadline for consultation responses is 22 March 2019 and is a statutory requirement that cannot be extended.

Kind regards,
Owen Hoare
EIA and Land Rights Advisor
Major Casework Directorate
The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol BS1 6PN

Direct Line: 0303 444 5799
Helpline: 0303 444 5000
Email: owen.hoare@planninginspectorate.gov.uk

Web: https://infrastructure.planninginspectorate.gov.uk/ (National Infrastructure Planning)
Web: www.gov.uk/government/organisations/planning-inspectorate (The Planning Inspectorate)

Twitter: @PINSgov

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