

Our ref: RA/2017/137277/02
Your ref: EN010081
Date: 31 October 2017

The Infrastructure Planning Commission
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Dear Sir/Madam,

Application by Eggborough Power Limited for an order granting development consent for the Eggborough CCGT project

Please find enclosed our written representations for the Eggborough CCGT project, which is preceded by a summary of our response. These representations detail those issues within our remit and outline where we require any additional information. Due to the detailed nature of our relevant representations, many of the comments here duplicate our previous comments. Where relevant, these have been updated to reflect our ongoing discussions with the developer.

Please do not hesitate to contact me if you require any further information.

Yours faithfully,

Nick Pedder

Planning Specialist - Sustainable Places

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OFFICIAL

Eggborough Power Limited: Eggborough CCGT project order

Planning Inspectorate reference: **EN010081**

Environment Agency – written representations

31 October 2017

Submitted on behalf of the Environment Agency by:

Nick Pedder
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Summary of response

Our written representations discuss the proposed development and the Environment Agency's role in the context of the Environmental Permitting (England and Wales) Regulation 2010 (EPR) as amended. We are satisfied that the proposed development is of a type and nature that should be capable of being adequately regulated. However, without a duly made permit application, we are unable to undertake a technical assessment of the operation of the installation. As such, it would be premature to provide comments on whether or not a permit would be issued at this stage.

We also seek to clarify the outcome of any discussions with the applicant since we submitted our relevant representations. We have done this because some of our original concerns have been addressed and resolved, as will be reflected in the statement of common ground between the applicant and the Environment Agency. In particular, we highlight that the applicant has stated that they will no longer use the open cut cross method for the gas pipeline (see sections 8.2 and 8.3). We also note that the applicant has provided sufficient information to address our comments about the CCR requirements (see section 17)

We have commented on the following areas:

Environmental permit:

1. Operation of the proposed power plan
2. Combined heat and power ready requirements
3. Flood risk activities
4. Discharges to surface water and groundwater
5. Air quality and noise
6. Waste
7. Water abstraction licence

Draft DCO

8. General comments
9. Detailed design
10. Surface and foul water drainage
11. Flood risk mitigation
12. Contaminated land and groundwater
13. CEMP
14. Waste management
15. Design Parameters

Other comments

16. Water framework directive
17. Carbon capture ready requirements

Environmental permit comments

1. Environmental permit: operation of the proposed power plant

- 1.1. This project is for a new 2500 gross megawatt electrical generating plant operating as a Combined Cycle Gas Turbine (CCGT) power station and a new 299 gross megawatt electrical generating plant operating as a 'peaking' / 'black start' power station. The proposed development would provide electricity to the national grid.
- 1.2. As the works described in Schedule 1 (Authorised Development) are classed as a Section 1 Combustion Activity under the Environmental Permitting (England and Wales) Regulations 2016 (EPR), an environment permit would be required before operations commenced.
- 1.3. We have received the applicant's permit variation application and are in the process of carrying out a full technical assessment of this proposal.
- 1.4. In our relevant representations, we advised that as we are yet to carry out this assessment, the comments within this letter are provided in response to the DCO application only. They do not determine whether or not a permit will be granted. This situation remains unchanged.
- 1.5. In determining a permit application, we will consider:
 - Management - including general management, accident management, energy efficiency, efficient use of raw materials and waste recovery
 - Operating activities and techniques - including the use of Best Available Techniques for process design and management
 - Combined heat and power
 - Carbon capture and sequestration
 - Emissions to air and discharges to water, land and groundwater along with odour, noise and vibration
 - Information - monitoring, records, reporting and notifications
- 1.6. All of the above are assessed within the requirements of Best Available Techniques (BAT). BAT is required in order to avoid or reduce emissions resulting from certain installations and to reduce the impact on the environment as a whole. Use of BAT is required when licensing the major potentially polluting industries under the Environmental Permitting Regulations 2016.
- 1.7. When assessing the permit application we will set conditions to ensure the emissions and discharges are at a level that will not significantly affect people and the environment. This reflects current statutory requirements and will ensure compliance with European Directive 2010/75/EU on industrial emissions. We cannot grant a permit until we are satisfied that the operation of the process will not cause significant pollution to the environment or harm to human health.
- 1.8. If the applicant does not demonstrate an ability to comply with such conditions, the permit will be refused.

2. Environmental permit: combined heat and power ready requirements

- 2.1. The applicant has concluded that it would not currently be viable to produce heat or steam from the proposed development. The applicant has reached this decision by undertaking a high level economic appraisal (with costs estimated using experience from other schemes) and taking account of the distributed nature of the loads, the distances to the identified opportunities, potential barriers and constraints to the installation of export pipework.
- 2.2. We are satisfied that the applicant has precluded heat or steam production by following the guidance within '[CHP Ready Guidance for Combustion and Energy from Waste Power Plants' V1.0 February 2013](#)'
- 2.3. All new combustion power plants that do not include CHP from the outset must nevertheless be CHP-ready. The degree to which they are CHP-ready will depend on the technical viability of future opportunities for heat supply in the vicinity of the plant. As such, any permit application will need to assess CHP readiness via a Best Available Technique (BAT) assessment alongside a cost-benefit assessment (under Article 14 of the Energy Efficiency Directive).
- 2.4. Should a permit be issued to the operator, it will include the following condition, which stipulates that the operator must undertake a periodic CHP review:

The operator shall review the viability of Combined Heat and Power (CHP) implementation at least every 4 years, or in response to any of the following factors, whichever comes sooner:

 - new plans for significant developments within 15km of the installation
 - changes to the local plan
 - changes to the DECC UK CHP Development Map or similar
 - new financial or fiscal incentives for CHP
- 2.5. Although the applicant has stated that 'sufficient space will be allocated for future retrofit' we highlight that a site layout plan, indicating available space which could be made available for CHP, has not been provided with the DCO application. A site layout plan is a requirement of section 4.4 of the CHP-R form.
- 2.6. The selection of heat loads has not been agreed with the Environment Agency. Whilst this is a requirement for the environmental permitting regulations, it also has planning implications as the agreed heat loads could dictate the site infrastructure and therefore affect the footprint of any development required. A further revision of the CHP-R assessment will, however, take place following completion of the detailed design. This will be based on potential heat loads agreed with the Environment Agency. The applicant states it is likely that the heat load available from the proposed development would be the load from a single CCGT unit without modification and that the other two CCGT units and /or the peaking plant could be used to improve redundancy in the system. This needs further assessment via the revised CHP-R.
- 2.7. The CHP-R assessment takes into consideration the CC-Ready requirements.

3. Environmental permit: flood risk activities

- 3.1. The applicant has acknowledged our main river permitting requirements within their 'Other consents and licences' document (ref: 5.4). A permit will therefore be required for any works within 8m (16m if tidal) from the top of the bank of a main river. The applicant should also be aware that any works in, under, or over a flood defence, or within 8m (16m if tidal), of the toe of a defence will also require a permit. A permit is separate to and in addition to any planning permission/DCO granted. Further details are available at www.gov.uk/guidance/flood-risk-activities-environmental-permits
- 3.2. All applications for consent for the erection of any culvert and/or any alteration likely to affect the flow in an ordinary watercourse must be made to the local internal drainage board.

4. Environmental permit: discharges to surface water and groundwater

- 4.1. An EPR permit may be required if there are any discharges to surface water arising from dewatering activities as part of the construction phase. Early consultation with our environmental management team is advised as these permits can take up to 3 months to determine.
- 4.2. Chapter 4, section 4.2.84 of the environmental statement refers to the possible installation of a septic tank at the site. A permit may be necessary for discharging any sewage effluent to ground or surface waters.
- 4.3. The 'Others consent and licences' document (ref: 5.4) should be updated to reflect any permitting requirements in relation to discharges to surface water or groundwater
- 4.4. Chapter 5, sections 5.2.22 to 5.2.27 of the environment statement details the construction of the water connection. An EPR permit may be required.

5. Environmental permit: air quality and noise

- 5.1. We have reviewed chapters 8 (air quality) and 9 (noise and vibration) of the environmental statement. Whilst we cannot comment on the modelling predictions' validity as this could prejudice the permit determination, we note that the applicant has addressed our air quality comments we made on the draft environmental statement. Addressing these comments has minimised the likelihood of schedule 5 questions in this respect. The applicant should be aware that we will need to review the model input files as part of the determination process.
- 5.2. The applicant has conducted a BS4142 assessment comparing their soundplan predictions to baseline monitoring. Copies of the monitoring traces will be needed for EPR determination as well as copies of the soundplan modelling files.
- 5.3. For reference, the EPR applicant should ensure their submission contains the information identified in our guidance. This can be attained using the link https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/521189/972_14.pdf

6. Environmental permit: waste

- 6.1. Should demolition waste require treatment prior to being reused as part of the construction phase, a relevant exemption or environmental permit would be required.
- 6.2. According to 'The Definition of Waste: Development Industry Code of Practice' (DoWCoP) document, suitably processed or source-segregated aggregate material such as crushed brick and concrete (reused on the site of production) can be used within earthworks/drainage. This voluntary code of practice sets out current good practice and provides a framework for determining whether or not excavated materials arising from the site during remediation and/or land development works are considered waste or not.
- 6.3. If the demolition waste requires treatment to make it suitable for re-use, it would be classed as a waste and therefore should be regulated by the Environment Agency.
- 6.4. If stockpiles of demolition waste are anticipated to be in place for longer than 12 months, then an agreement from the Environment Agency should be sought (see DoWCoP, Paragraph 4.1).

7. Water abstraction licence

- 7.1. The applicant's current abstraction licence (2/27/18/123R01) authorises abstraction from the ground from two boreholes. The water is used for boiler feed at an aggregated rate of no more than 1500 Ml/a
- 7.2. The applicant also has a licence (2/27/18/045) which authorises abstraction from the River Aire for the purpose of:
 - Cooling water make up
 - Ash disposal
 - Flue gas desulphurisation process water (6% of the total river water abstracted, 10% returned to source)
- 7.3. We are aware that the applicant wants to retain their licences for cooling water abstraction from the River Aire alongside two groundwater boreholes at the existing site. Due to the proposed development's increased operating efficiency, we understand that the volume of cooling water abstracted will be less than half that which is currently allowed by the permit.
- 7.4. Our water resources team would nevertheless appreciate further information on what exactly is proposed. The applicant should contact Karen Wooster (0203 0256808, karen.wooster@environment-agency.gov.uk) to further discuss water abstraction licence requirements.

Draft DCO comments

8. Draft development consent order: general comments

- 8.1. Overall, we are satisfied that the draft Development Consent Order (DCO) adequately mitigates those environmental considerations within our remit.

- 8.2. In our relevant representations, we expressed concern about how the open cut crossing points either side of the River Aire will affect the integrity of our flood defences on this land.
- 8.3. In response to our concerns, the applicant has proposed that they use horizontal directional drilling instead. This method is likely to offer an improvement over the open cut method. We are currently engaged in talks with the applicant about this matter and will update our statement of common ground to reflect the outcome of these discussions.
- 8.4. We understand that no part of the DCO seeks to disapply the requirements of the Water Resources Act 1991, the Land Drainage Act 1991 and/or any byelaws made under these acts in relation to the construction of works carried out for the purpose of, or in connection with the construction or maintenance of the project.

9. Detailed design (schedule 2, requirement 5)

- 9.1. We are pleased that this requirement will ensure that any works take place in accordance with the Eel (England and Wales) Regulations 2009 and that details of the cofferdams will be submitted to the Environment Agency and local planning authority prior to commencement.

10. Surface and foul water drainage (schedule 2, requirement 13)

- 10.1. We welcome the inclusion of this requirement.

11. Flood risk mitigation (schedule 2, requirement 14)

- 11.1. Overall, we are supportive of the content and principles laid out in chapter 11 and appendix 11A of the environmental statement. All works must be carried out in accordance with these principles. We are pleased that requirement 14 of the draft DCO states that all flood risk mitigation shall be agreed in writing by the Environment Agency and the local planning authority before any works commence.
- 11.2. We agree that the small area of flood zone 3 in the construction laydown area should not be considered as flood zone 3 as the submitted topographic survey shows that ground levels are located above the modelled flood levels in this location.
- 11.3. The applicant has stated that all flood flow routes will be maintained, construction materials and arisings will be stored outside of the floodplain where possible, and that there will be no raising of ground levels as a result of the installation of the gas pipeline.
- 11.4. We expect to see no permanent ground raising in flood zone 3 or washland areas. Any temporary ground raising in these areas should not increase flood risk to others. This will need to be demonstrated in any flood risk mitigation schemes submitted for our review as part of requirement 14.

12. Contaminated land and groundwater (schedule 2, requirement 15)

- 12.1. Overall, we are satisfied that the requirements within the draft DCO provide suitable mitigation for any concerns in relation to groundwater and contaminated land. However, as mentioned in our relevant representations, we object to the inclusion of

the words 'if necessary' in the third clause of requirement 15.2. A site investigation must be undertaken as recommended in chapter 12 of the environmental statement.

- 12.2. If the site investigation report reveals any previously unidentified contamination, further mitigation measures should be defined and investigated in the subsequent remediation strategy report.

13. Construction and environment management plan (schedule 2, requirement 18)

- 13.1. We are satisfied that the applicant's framework CEMP provides adequate mitigation for those matters within our remit.
- 13.2. We therefore support the mitigation outlined in requirement 18 for a construction and environment management plan, in particular the requirement outlined in clause 2 (section d) for a sediment control plan.
- 13.3. As we have advised the applicant in our previous responses, silt and sediment can cause significant pollution in a watercourse. It covers the bed, smothering invertebrates and fish eggs and reduces the light entering the water column. In extreme cases it can kill fish directly. Water that is contaminated with silt or sediment is a polluting material and as such it is an offence under the Environmental Permitting (England & Wales) Regulations 2016 to discharge it to a watercourse.
- 13.4. Activities which may cause silt pollution include:
- Dewatering of trenches and excavations
 - Cementing / concreting or grouting
 - Grit blasting
 - Piling
 - Working within the bed of a watercourse

14. Waste management on site – construction wastes (schedule 2, requirement 26)

- 14.1. We welcome the requirement for a construction site waste management plan (SWMP) to be submitted prior to development.
- 14.2. We consider that the potential impacts of waste management from the project have been considered and regard has been given to the waste hierarchy and designing waste out of the construction phase.
- 14.3. Waste arisings should be reduced as far as is reasonably practicable. Should treatment of waste arisings be required to reduce 'waste' exportation, the applicant should contact the Environment Agency for advice for on-site treatment.
- 14.4. The SWMP should be initiated at design stage. This will ensure that, where possible, waste can be prevented before it is created.
- 14.5. The SWMP should continue to be a 'live document' which is updated and monitored by contractors. This will ensure that wastes are managed as high up the waste hierarchy as possible, that the amount of waste produced is known, and that the waste recovery and recycling aspirations of the project (described in section 14 of the environmental statement) are met.
- 14.6. The Environmental Protection (Duty of Care) Regulations 1991 for dealing with waste materials are applicable for any off-site movements of wastes. As a waste

producer, the applicant has a duty of care to ensure that all removed materials go to an appropriate permitted facility and all relevant documentation is completed and kept in line with regulations.

15. Design parameters (schedule 14, requirement 5, part 1)

- 15.1. This requirement sets out the maximum design parameters for the stacks, cooling towers and other buildings and structures. The heights for certain structures on site will be dependent on the results of the technical assessment submitted with environmental permit application.
- 15.2. As we are yet to consider the permit application in detail, we are currently unable to comment on the appropriateness of the thresholds set out in the DCO. It remains possible that the limits set out in the DCO may not be considered appropriate for the permit application.

Further comments

16. Water framework directive

- 16.1. We consider that the submitted application identifies measures to ensure no deterioration of the waterbody's status through the construction phase of the development. Operational impacts of the development will be considered at permit application stage.

17. Carbon capture ready requirements

- 17.1 Based on the information provided in the original Carbon Capture Readiness Assessment and further information provided to us on 27 October 2017, we consider that there are no foreseeable barriers to carbon capture with regards to space allocation and the technical feasibility of carbon capture retrofit.

AQ 1.3 Baseline Data
North Yorkshire CC
Selby DC
Environment
Agency

Provide a response to paragraphs 8.4.7 to 8.4.10 of the ES [APP-046], which refer to sources of air quality monitoring data in the local area and why the most appropriate source for the modelling is the Defra mapping.

We will expect the applicant to justify their source of air quality baseline data as part of the permit application. As such, we're unable to provide any further comments until we review the permit application.

AQ 1.9 Use of Selective Catalytic Reduction

The Applicant
The Environment Agency

- i) Provide an update on whether Selective Catalytic Reduction (SCR) is to be used and if necessary, update documents accordingly.
- ii) Explain how the need for SCR is secured in the draft DCO [APP-005] and the extent to which it is reflected elsewhere in the ES on a topic by topic basis.
- iii) What is the status of the Environmental Permit application

AQ 1.11 Use of Selective Catalytic Reduction

The Environment Agency

Paragraph 8.2.13 of the ES [APP-046] states that the Environment Agency is in the process of reviewing whether the potentially tighter Best Available Technologies and Achievable Emissions Values need to apply to high efficiency gas-fired plant. Provide an update on this position.

The following response addresses both AQ1.9 and AQ1.11:

We'll determine whether Selective Catalytic Reduction (SCR) is required to be installed on the proposed CCGT through the environmental permit application. The determination will conclude which approach to emissions control represents Best Available Technique (BAT) for this installation, given its characteristics, location and geographical context.

Given that we're currently determining the environmental permit for the proposed CCGT, it would not be appropriate to prejudice the outcome of this process. That said, based on our initial review of the predicted levels of impact on human health and ecological receptors when running with and without SCR, the levels of impact do not preclude either option at this stage and both options should be retained until BAT has been determined. The final decision on the need for SCR will be made through the permitting process based on a balance of a number of factors including air impact, energy efficiency, carbon emissions, safety and cost.

FW 1.3 *Methodology*

The Applicant

The Environment Agency

Section 11.3 of the ES [APP-049] sets out the assessment methodology and significance criteria. The majority of the assessment has been undertaken on a qualitative basis although the Flood Risk Assessment Appendix 11A [APP-112] has used modelled flood levels from the Environment Agency to inform the assessment. Paragraph 5.2.10 of the Flood Risk Assessment (FRA) states that the EA will be updating its hydraulic modelling for the area, with deliverables expected at the end of 2016/early 2017.

- i) Confirm whether the deliverables are available
- ii) Explain whether the conclusions in the FRA are affected.

There are two hydraulic models which are relevant to this site – the Upper Humber model and the Lower Aire model. The latter has been published, but the Upper Humber model is still in draft. It is now likely to be published in the first half of next year. The outputs from these models should not affect the FRA's assessment of risk or its conclusions.

FW 1.4 *Methodology*

The Environment Agency

Comment on the qualitative approach and conclusions drawn in the ES [APP-049] and the Flood Risk Assessment, Appendix 11A to the ES [APP-112].

As stated in our relevant representations, we are satisfied with the applicant's assessment of flood risk and the subsequent conclusions reached in the ES and FRA. As such, we have no further comments to add.

FW 1.11 *Cofferdam Removal*

The Applicant

Selby DC

North Yorkshire CC

The Environment Agency

The Marine Management Organisation

- i) Comment on the need for a specific plan for cofferdam removal.

For the Applicant:

- ii) If necessary, provide this plan.

Our environmental concerns associated with the process of removing the cofferdams relate to silt pollution and the potential for disturbing migratory fish. Requirement 18 (CEMP) includes a silt management plan and requirement 5 (detailed design) requests that we are consulted on the timing of the removal of the cofferdams at the intake and outfall points.

The applicant's CEMP also addresses these matters, stating that:

the installation and subsequent removal of temporary cofferdams required to enable construction works at the cooling water abstraction and discharge points will be completed

outside of the main salmonid migratory period (October to December inclusive) to minimise potential impacts on migrating fish;

appropriate silt control measures (silt curtains) will be used during the installation and removal of temporary cofferdams in the River Aire, and during works within Ings and Tethering Drain and Hensall Dyke;

We therefore consider that there is no need for a specific plan for cofferdam removal given that any environmental concerns should be adequately addressed within the DCO.

FW 1.16 River Aire Crossing

The Applicant

The Environment Agency

The Environment Agency (EA) in its Relevant Representation [RR-013] raises concerns that the open cut crossing either side of the River Aire will affect the integrity of the EA's flood defences on this land.

For the EA:

i) Explain how the crossing could affect flood defence integrity, and mitigation that would alleviate its concerns.

For the Applicant:

ii) Provide a response.

In response to our concerns, the applicant has since suggested that they use horizontal directional drilling instead of an open cut technique. This method is a preferable method of constructing the underground gas pipeline as it is less likely to affect our flood defences.

Despite this, we would like the DCO to provide some further safeguards to protect our defences' integrity. We are therefore in the process of drafting some wording for a requirement which will seek monitoring to be carried out for subsidence and, if needed, a mitigation scheme to deal with any settlement. We will update the statement of common ground to reflect any agreement reached.

FW 1.17 Indicative Construction and Environmental Management Plan

The Environment Agency

i) Comment on the sufficiency of the 'Framework' CEMP set out in the ES [APP-099] Appendix 5A.

We are satisfied that the framework CEMP provides adequate mitigation for those matters within our remit.

ii) Comment on Requirement 18(2)(d) of the draft DCO [APP-005] in respect to a sediment control plan and mitigating potential effects from silt pollution.

In our s42 response, we highlighted that the environmental risks of silt pollution had been inadequately addressed and that insufficient mitigation had been proposed. In particular, we were concerned with the statement within table 10.5 that 'works....may result in the unavoidable release of sediments into the river'.

In the subsequent DCO submission, however, we were satisfied that the applicant had provided sufficient further detail to address our previous concerns. Nevertheless, given the potential effect silt pollution can have on a watercourse (as described in sections 14.1 to 14.3 of our relevant representations response), we remain supportive of the requirement for a sediment control plan. This plan should act as an appropriate mechanism to ensure that the construction process does not cause silt pollution.

FW 1.18 *Water Framework Directive*

The Environment Agency

Comment on the ES [APP-049] paragraphs 11.6.61-11.6.65 in respect that there would be no effect on Water Framework Directive (WFD) status and objectives, and that the proposed development is unlikely to impact upon the ability of WFD mitigation measures to be implemented or for current measures to remain.

We agree with the conclusions set out in these paragraphs. We consider that the submitted application identifies measures to ensure no deterioration of the status of the waterbody through the construction phase of the development. Operational effects of the development will be considered through the permitting process.

FW 1.21 *Outline Drainage Strategy*

The Environment Agency

North Yorkshire CC

Internal Drainage Boards

Comment on the Outline Drainage Strategy (Appendix 11A to the ES) [APP-112] and the draft DCO [APP-005] Requirement 13 in respect to control of surface and foul drainage.

We're no longer responsible for commenting on matters in relation to surface water. North Yorkshire County Council, in their role as lead local flood authority, together with the relevant internal drainage boards, will be best placed comment on the drainage strategy.

As stated in section 5 of our relevant representations response, there are a number of environmental permits which may need to be sought by the applicant for matters relating to surface and foul drainage.