

Note / Memo

HaskoningDHV UK Ltd.
Water & Maritime

To: Lindsey Stuart
From: Tim Britton
Date: 22 July 2024
Copy: Caroline Martin
Our reference: PC3999-RHD-XX-XX-ME-X-0002
Classification: Confidential
Checked by: Nick Haigh

Subject: Responses to Examiner on Viking CCS project

Dear Lindsey,

This memo relates to the support being provided by Royal HaskoningDHV to East Lindsey District Council (ELDC) on responding to the Development Consent Order (DCO) application for the proposed Viking CCS Pipeline project. Tim Britton attended Issue Specific Hearing (ISH) 3 to represent ELDC on noise impacts and the Examining Authority (ExA) has assigned the following action point to ELDC as arising from ISH3:

“Provide details of other DCO schemes which are appropriate comparators in terms of noise assessment.”

This note provides further information in relation to appropriate criteria to apply to the noise assessment, as well as details of the other DCO schemes as requested by the ExA.

1 Appropriate construction noise level criteria

British Standard (BS) 5228-1:2009+A1:2014 ‘Code of practice for noise and vibration control on construction and open sites – Part 1: Noise’ (ASS-088) was approved within The Control of Noise (Code of Practice for Construction and Open Sites) Order 2015 as suitable guidance on appropriate methods for the control of noise from construction and open sites in exercise of the powers conferred on the Secretary of State by sections 71(1)(b), (2) and (3) of the Control of Pollution Act 1974. Hence, BS 5228-1 is the appropriate standard for assessing construction noise impacts of projects in the UK, irrespective of the type of project under consideration.

Annex E of BS 5228-1 provides example criteria for the assessment of potential significance of construction noise effects, which are provided in four sections, summarised as follows:

- E.2 Potential significance based on fixed noise limits, which are:
 - 70 decibels (dBA) in rural, suburban and urban areas away from main road traffic and industrial noise; and
 - 75 decibels (dBA) in urban areas near main roads in heavy industrial areas.
- E.3 Potential significance based on noise change. These methods allow for consideration of change in baseline sound levels due to the construction, subject to minimum thresholds of 65 dB, 55 dB and 45 dB $L_{Aeq, T}$ for the daytime, evening and night-time periods, respectively. Method E.3.3 indicates that noise levels must last for at least one month for effects to be significant.

- E.4 Example of thresholds used to determine the eligibility for noise insulation and temporary rehousing, which are identified in Table E.2 of the standard. For a property to be deemed eligible, the noise level criteria must be exceeded for “a period of 10 or more days of working in any 15 consecutive days or for a total number of days exceeding 40 in any 6 consecutive months.”
- E.5 Construction works involving long-term substantial earth moving – this proposes a limit of 55 dB $L_{Aeq,1h}$ during normal working hours.

The construction noise assessment, as reported in Document 6.2.13 Environmental Statement - Volume II - Chapter 13: Noise and Vibration [APP-055], adopts a simplified version of the criteria for eligibility for noise insulation as the thresholds for the onset of potentially significant effects (known as the SOAEL, see Table 13-11 of APP-055). These are 75 dB, 65 dB and 55 dB $L_{Aeq, T}$ from site noise alone, for the daytime, evening and night-time periods. These values are also presented in BS 5228-1 Section E.3.2 (the ‘Category C’ values); however, it is apparent from the results of the applicant’s baseline sound survey (see Tables 13-17 and 13-18 of APP-055) that the lower threshold values would be applicable during the daytime at the majority of the identified receptors. By choosing not to apply the lower threshold values, irrespective of the survey results, I consider that the applicant has effectively disregarded the assessment methods in Sections E.2 and E.3 and relied solely upon noise insulation eligibility as the determiner for a significant effect. I accept that the noise insulation criteria can be used to determine the significance of effects due to very short-term works; however, where noise impacts would last a month or more, I interpret BS 5228-1 that the threshold values determined from the baseline measurements identified in Section E.3 should be used.

The applicant has stated that the thresholds for significant effects used in APP-055 are based on the guidance published by the Association of Noise Consultants (ANC) ‘Construction Noise – A good practice guide to the preparation, submission and management of Section 61 consents’ (March 2021) (the ANC Guide). This document is not referenced within APP-055. The ANC Guide Section 1.3.6 Government Policy states the following:

“Planning Practice Guidance Noise^[vii] is clear that it is up to the local planning authority to define their own values should they choose to do so, for example by setting a SOAEL for construction noise. Therefore, local authorities may have published differing values or may declare a preference for alternative values to those presented below.

However, to assist the promoter, developer and/or contractor, the following guidance is taken from the Thames Tideway Tunnel environmental statement, which was scrutinised in detailed [sic] as part of the Development Consent Order process...”

The ANC Guide goes on to identify the SOAEL values used by the Thames Tideway Tunnel project Environmental Statement (ES), which are those used in APP-055. The ANC Guide does not state that the criteria used by the Thames Tideway Tunnel project should be used to assess construction noise effects and acknowledges that local authorities can select alternative values. The ANC Guide discussion on construction noise effects contrasts with the Design Manual for Roads and Bridges LA111 Noise and Vibration (2021) (the DMRB), which requires that the SOAEL is the threshold level as determined in Section E.3.2 of BS 5228-1, irrespective of local policy.

I wish to clarify a point raised during ISH3, which is that I am not arguing that the project should apply the DMRB. My contention is that applicant has not sufficiently justified why the criteria in BS 5228-1 Section E.3 are disregarded in favour of the less onerous criteria in Section E.4. The fact that the DMRB LA111 Noise and Vibration was compiled based on the opinions of a group of acoustic experts, which analysed

the guidance in BS 5228-1 and concluded that Section E.3 should be used to determine the effect of construction noise, is considered to give weight to my interpretation of the standard.

2 Other DCO schemes

Other DCO schemes deemed comparable to the proposed Viking CCS, which have used the criteria taken from Section E.3.2 of BS 5228-1, are detailed in Table 2-1. In all cases, the assessments of construction noise have identified the onset of potentially significant effects at residential receptors as the threshold value determined using BS 5228-1 Section E.3.2. The interpretation of duration-related criteria differ between the assessments, some applying 10-days in 15 (as per noise insulation eligibility) and others applying one month. The Sizewell C and Rampion 2 projects distinguished between assessments of compliance with policy (which requires identification of a SOAEL, exceedances of which should be avoided) and the potential for significant effects. For these projects, the SOAEL was set at the noise insulation criteria, but the impact assessment method used BS 5228-1 Section E.3.2. The projects in Table 2-1 are energy schemes with linear components and are therefore considered comparable to the Viking CCS project.

Table 2-1 Other DCO schemes which have used BS 5228-1 Section E.3 in the assessment of construction noise effects

Project name	Applicant	Description (taken from Planning Inspectorate website ¹)	Application date	Application document and significance criteria
H2 Teesside	H2 Teesside Ltd	A hydrogen production plant of up to 1,200 megawatt thermal capacity; hydrogen distribution pipelines; an air separation unit or oxygen supply pipeline; carbon dioxide capture and compression facilities and a connection to the Northern Endurance Partnership infrastructure (also known as Net Zero Teesside); a natural gas supply connection; other gas pipelines; an electricity grid connection; water supply and treatment infrastructure; wastewater treatment and disposal infrastructure; and other utilities connections, telecommunications and other associated and ancillary infrastructure.	April 2024	ES Chapter 11.0 Noise and Vibration ²
Cory Decarbonisation Project	Cory Environmental Holdings Limited (CEHL)	Construction and operation of carbon capture plant, storage and marine export terminal	March 2024	ES Chapter 6: Noise and Vibration ³
Byers Gill Solar	RWE Renewables UK Solar and Storage Limited	The project consists of a proposed solar farm with over 50MW capacity, Solar PV modules and associated mounting structures, inverters, transformers, switch gear and control equipment, a substation, energy storage equipment and underground on and off-site cabling.	February 2024	ES Chapter 11 Noise and Vibration ⁴

¹ <https://national-infrastructure-consenting.planninginspectorate.gov.uk/>

² Available at <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070009/EN070009-000246-H2T%20DCO%20-%206.2.11%20ES%20Vol%20I%20Chapter%2011%20Noise%20and%20Vibration.pdf>

³ Available at <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010128/EN010128-000141-6.1%20Environmental%20Statement%20-%20Chapter%206%20-%20Noise%20and%20Vibration.pdf>

⁴ Available at <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010139/EN010139-000188-6.2.11%20Environmental%20Statement%20Chapter%2011%20Noise%20and%20Vibration.pdf>

Project name	Applicant	Description (taken from Planning Inspectorate website ¹)	Application date	Application document and significance criteria
Rampion 2	Rampion Extension Development Limited	Offshore wind farm with up to 90 wind turbines, associated foundations and all the electrical infrastructure required to transmit the power into the national electricity network at Bolney in Mid Sussex.	August 2023	ES Volume 2, Chapter 21: Noise and vibration ⁵
Bramford to Twinstead	National Grid Electricity Transmission	Construction and operation of a new double circuit electricity transmission network reinforcement of c.29km, consisting of overhead lines, underground cables, a grid supply point substation and associated development.	April 2023	ES Chapter 14 Noise and vibration ⁶
Sizewell C	NNB Generation Company (SZC) Limited	New Nuclear Power Station	May 2020	ES Volume 1 Appendix 6G Noise and Vibration Legislation and Methodology ⁷

⁵ Available at [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000632-Rampion%20Extension%20Development%20Limited%20-%20Responses%20\(if%20applicable\)%20to%20the%20Rule%209%20letter%20of%2020%20September%202023%2012.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000632-Rampion%20Extension%20Development%20Limited%20-%20Responses%20(if%20applicable)%20to%20the%20Rule%209%20letter%20of%2020%20September%202023%2012.pdf)

⁶ Available at <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020002/EN020002-000571-6.2.14%20ES%20Chapter%2014%20Noise%20and%20Vibration.pdf>

⁷ Available at https://sizewellcdco.co.uk/wp-content/uploads/2020/06/SZC_Bk6_ES_V1_Ch6_EIA_Methodology_Appx6D_6Y.pdf