The Secretary of State
c/o The Planning Inspectorate
National Infrastructure
Temple Quay House
2 The Square
Bristol
BS1 6PN

Our ref: AN/2013/117045/03-L01
Your ref: EN010038

Date: 27 August 2025

[Sent via email only to NorthKillingholme@planninginspectorate.gov.uk]

Dear Sir/Madam

NOTICE OF APPLICATION TO MAKE A NON-MATERIAL CHANGE TO THE FOLLOWING DEVELOPMENT CONSENT ORDER: North Killingholme (Generating Station) Order 2014 (S.I. 2014/2434) as corrected and amended by the North Killingholme (Generating Station) (Correction) Order 2015 (S.I.2015/1829) and the North Killingholme (Generating Station) (Amendment) Order 2021 (S.I2021/1055).

We have received a notification from Uniper UK Limited (the Applicant) of its proposed application for some minor changes to the above Development Consent Order (DCO).

The application seeks non-material changes to the Order to allow for:

- An increase in the MW output capacity consented in the DCO from 470 MWe to 550 MWe; either output will be delivered from the same gas turbine technology, but the higher output will enable the plant to run more efficiently and will also align with the grid export connection limit.
- Minor changes to internal boundaries of Work No. 1 to enable the CCGT build to be optimised.
- Minor changes to several building parameters specified in Schedule 1 Part 2 to the DCO to align with the design work undertaken for the CCGT.
- Reprovision of the land set aside to meet the CCR provisions to accommodate the appropriate carbon capture infrastructure in a suitable location.

Accordingly, we have reviewed the supporting information and have the following comments to make on it.

Carbon Capture Readiness Provision

We have only reviewed the assessment of space required as a result of the increase in electrical output of the proposed CCGT. We agree with the Applicant's conclusion that 26,274 m^2 (2.63 hectares) is sufficient space for the carbon capture plant. We append a copy of our review assessment below for your information.

Environmental Permitting Regulations 2016
A permit to operate this proposed development was granted a number of years ago. It is likely that this permit will need to be varied to take into account some of the changes that have been proposed in this non-material change application. Accordingly, we would advise the Applicant to use the Environment Agency's enhanced pre-application service to determine whether a variation would need to be applied for.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me at the number below.

Yours faithfully

[redacted]
Principal Planning Adviser

Direct dial [redacted]
Direct e-mail [redacted]@environment-agency.gov.uk

End

Appendix

North Killingholme Power Project North Killingholme (Generating Station) Order – Non-Material Change Application 2025

Carbon Capture Readiness Compliance 550MWe CCGT Environment Agency assessment record

North Killingholme Power Project
North Killingholme (Generating Station) Order – Non-Material Change Application 2025
Carbon Capture Readiness Compliance
550MWe CCGT
Environment Agency assessment record

Notes:
Benefit of the North Killingholme (Generating Station) Order 2014 as corrected and amended by the North Killingholme (Generating Station) (Correction) Order 2015 and the North Killingholme (Generating Station) (Amendment) Order 2021 transferred from C.Gen Killingholme Limited to Uniper UK Limited on 17/12/2024. Therefore, Uniper UK Limited is now 'the Applicant'.

Proposed amendment:
The only change is the electrical output from 470MWe to 550MWe and the consequential increase in space required for the carbon capture plant.

The Applicant states that the technical parameters relating to the proposed carbon capture plant design remain the same, although they are scaled up by 18% to account for the proposed increase in output. However, this is within the design envelope, so no further amendments are required.

Ref	Item	Requirement	Compliance
C1	**Design, Planning Permissions and Approvals**	**Note C1**: A pre-feasibility-level conceptual capture retrofit study should be supplied for assessment, showing how the proposed CCR features would make adding post-combustion capture technically feasible, **together with an outline level plot plan for the plant retrofitted with capture.**	The feasibility study provided as Appendix A.1 to the Carbon Capture Readiness Compliance Report is the study submitted with the Non-Material change application from 2021. Comments related to this report were provided in the previous consultation in 2021. The Environment Agency has no further comments.

C2	**Power Plant Location**	**Note C2a**: The work undertaken on CO2 transport and storage should be referenced; the exit point of gases from the curtilage of the plant and how this affects the configuration of the capture equipment is the important aspect for the Environment Agency. **Note C2b**: Health and Safety items in this section are outside the Environment Agency remit.	No details provided other than the feasibility study provided as Appendix A.1 to the Carbon Capture Readiness Compliance Report is the study submitted with the Non-material change application from 2021. However, the Applicant states that since the original Order and Amendment, it is recognised that the Track 1 and Track 2 cluster sequencing process has been developed by the Department of Energy Security and Net Zero (DESNZ) specifically to facilitate the deployment of carbon capture in defined industrial clusters. The Applicant states that the location of the Proposed Development is ideally suited to connect to one of two potential carbon capture clusters – the Humber Carbon Capture pipeline which forms part of the East Coast Cluster, which would connect to the Endurance saline aquifers through Track 1 expansion, and the Viking Cluster which would connect to the depleted Viking gas fields through Track 2. The Environment Agency has no further comments.
C3	**Space Requirements**	*Space will be required for the following:* *a) CO2 capture equipment, including any flue gas pretreatment and CO2 drying and compression.* *b) Space for routing flue gas duct to the CO2 capture equipment.* *c) Steam turbine island additions and modifications (e.g. space in steam turbine building for routing large low pressure steam pipe to amine scrubber unit).* *d) Extension and addition of balance of plant systems to cater for the additional requirements of the capture equipment.* *e) Additional vehicle movement (amine transport etc).* f) *Space allocation for storage and handling of amines and handling of CO2 including space for infrastructure to transport CO2 to the plant boundary.* **Note C3:** It is expected that all of the provisions in a-f above will be implemented, including the provision of space and	The location of the CC plant is proposed to be amended and is no longer within the consent boundary but is on land owned by the applicant. This is shown on the Works Plan, 305719-ARP-ZZ-ZZ-DR-T-0001. No details of the proposed CC plant have been provided, only the change in location and size of the area. However, the Applicant has included the feasibility study submitted with the Non-material change application from 2021 as Appendix A.1 to the Carbon Capture Readiness Compliance Report is the study. The Applicant states that for an increase in electrical output from 470MWe to 550MWe the area for the carbon capture plant should increase from 22,452 m^2 to 26,274 m^2. This is based on a requirement of 48m^2 per MW, which is the figure used in previous assessments.

		access to carry out the necessary works at the time of retrofitting without excessive interruptions to normal plant operation. A statement describing how the space allocations were determined and how they will be met is required.	The Applicant's calculated space requirement using 48m^2 (or 47.77 without rounding up) per MW is based on Table 1 in (DECC) CCR guidance note but using the conclusion from the Imperial College report that table 1 figures are for a 785MWe CCGT power plant. The Environment Agency agrees with the Applicant's conclusion that 26,274 m^2 (or 2.63 hectares) of land is required. The area of land the Applicant is proposing to set aside for the CC plant (as shown on the Works Plan) is 48,598 m^2, so is in excess of that required. **The Environment Agency agrees with the Applicant's conclusion that 26,274 m^2 (2.63 hectares) is sufficient space for the carbon capture plant.**
C4	**Gas Turbine Operation with Increased Exhaust Pressure**	The gas turbine (and upstream ducting and heat recovery steam generator, HRSG) must be able to operate with the increased back pressure imposed by the capture equipment, or alternatively space must be provided for a booster fan. **Note C4**: A statement is required giving the expected pressure drop required for current commercial capture equipment together with a manufacturer's confirmation that the gas turbine can accommodate this and any effects on the performance, or alternatively describing booster fan specification together with space and other installation requirements.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C5	**Flue Gas System**	Space should be available for installing new duct work to enable interconnection of the existing flue gas system with the amine scrubbing plant and provisions in the duct work for tie-ins and addition of items such as bypass dampers and isolation dampers will be required as a minimum. If selective catalytic reduction (SCR) or other flue gas treatment is likely to be added at the time of retrofit then space for this should also be provided. **Note C5**: A statement is required describing the space and required flue gas system configuration for retrofit requirements and how they will be implemented.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.

C6	**Steam Cycle**	**Note C6**: A statement is required giving the steam pressure at the steam turbine IP/LP crossover (or other steam extraction point), together with a description of any post-retrofit equipment modifications/additions. It should be demonstrated that the steam cycle could be operated with capture using solvent systems with a range of steam requirements. The energy penalty involved in such steam extraction should be estimated and compared to theoretical minimum values (i.e. for extraction from a similar steam cycle that has been purpose-built for such steam extraction).	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C7	**Cooling Water System**	The amine scrubber, flue gas cooler and CO2 compression plant introduced for CO2 capture increases the overall power plant cooling duty. **Note C7**: A statement is required of estimated cooling water demands (flows and temperatures) with capture and how these will be met. It is expected that necessary space and tie-ins for cooling water supplies to post-combustion capture equipment will be provided and a description of these should be included.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C8	**Compressed Air System**	The capture equipment addition will call for additional compressed air (both service air and instrument air) requirements. **Note C8**: A statement is required of estimated additional compressed air requirements together with a description of how these will be accommodated.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C9	**Raw Water Pre-treatment Plant**	Space shall be considered in the raw water pre-treatment plant area to add additional raw water pre-treatment streams, as required. **Note C9**: A statement is required of estimated treated raw water requirements together with a description of how these will be accommodated.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C10	**Demineralisation / Desalination Plant**	A supply of reasonably pure water may be required to make up evaporative losses from the flue gas cooler and/or scrubber. Estimates of this water requirement should be made and space allocated for the necessary treatment plant (and an additional water source be identified if necessary).	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.

		Note C10: A statement is required saying which of the above are needed and in what quantity and also describing how the necessary provisions will be implemented	
C11	**Waste Water Treatment Plant**	Amine scrubbing plant along with flue gas coolers (if appropriate) provided for post combustion CO2 capture will result in generation of additional effluents. **Note C11:** A statement is required giving estimated additional waste water treatment needs and describing how the necessary space and any other provisions will be provided to meet expected demands.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C12	**Electrical**	The introduction of amine scrubber plant along with flue gas coolers, booster fans (if required), and CO2 compression plant will lead to a number of additional electrical loads (e.g. pumps, compressors). **Note C12**: A statement is required listing the estimated additional electrical requirements and describing space allocation in suitable locations for items such as additional transformers, switching gear and cabling.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C13	**Plant Pipe Racks**	Installation of additional pipework after retrofit with capture will be required due to the use of a large quantity of LP steam in the amine scrubbing plant reboiler, return of condensate into the water-steam-condensate cycle, additional cooling water piping and possibly other plant modifications. **Note C13**: It is expected that provision will be made for space for routing new pipework at the appropriate locations. A statement identifying anticipated significant additional pipework and describing space allocations to accommodate these is required.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C14	**Control and Instrumentation**	**Note C14**: It is expected that space and provisions for additional control equipment and cabling will be implemented. A statement identifying anticipated additional control equipment and describing space and other provisions to accommodate these is required.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.
C15	**Plant Infrastructure**	Space at appropriate zones to widen roads and add new roads (to handle increased movement of transport vehicles), space to extend office buildings (to accommodate additional plant personnel after capture retrofit) and space to extend	Comments related to this were provided in the previous consultation in 2021. The Environment Agency has no further comments.

		stores building are foreseeable. Consideration should also be given to how, during a retrofit, vehicles or cranes will access the areas where new equipment will need to be erected. **Note C15:** It is expected that the provisions above will be implemented. A statement identifying anticipated requirements and describing how they will be met is required.	
C16	**'Essential' Capture-Ready Requirements: Post Combustion Amine Scrubbing Technology based CO2 Capture**	The capture-ready requirements discussed in this section are the 'essential' requirements which aim to ease the capture retrofit of Natural Gas Combined Cycle power plants with post combustion amine scrubbing technology based CO2 capture. **Note C16**: The provisions covered in Notes C1-C15 can be adapted to include other liquid solvent mixtures for CO2 capture that can be shown to have a reasonable expectation of being commercially available at the time of retrofit and for which reliable performance estimates are already available. A statement on where the requirements for capture readiness for such solvents differ from those for amine capture with respect to all of the relevant sections C1- C15 above is required, together with any additional CCR features or other actions proposed, to be added as addenda to the responses to Notes C1-C15. If making the plant capture ready for other solvents conflicts with the CCR requirements for amine scrubbing then the impact on retrofitting amine scrubbing should be estimated and stated and the reasons for giving the other solvent priority should be listed and justified.	Comments related to this were provided in the previous consultation in 2021. The Environment Agency have no further comments.