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Decision regarding amendment of condition 19 in the permit for Nord Stream 2 Natural Gas Pipelines

On 5 June 2020, Nord Stream 2 AG submitted a request for the amendment of condition 19 in the installation permit for Nord Stream 2 dated 30 October 2019, to enable Nord Stream 2 AG to use both pipe-lay vessels with self-positioning (DP vessels) and pipe-lay vessels with anchors, or a combination of these two vessel types for the further installation of Nord Stream 2. Together with the request, Nord Stream 2 AG enclosed an assessment of the effect on various factors, including shipping, chemical munitions and biological receptors, of the possible vessel options for the further installation of Nord Stream 2 and a risk assessment for the further installation of the pipelines.

Background

On 3 April 2020, Nord Stream 2 AG requested the Danish Energy Agency's assessment of the material, also enclosed with the application dated 5 June 2020.

On 20 May 2020, the Danish Energy Agency responded that the use of pipe-lay vessels with anchors is covered by the environmental impact assessment for the project, that the use of a pipe-lay vessel with a lower lay speed did not alter the conclusions of the environmental impact report, and that the reduced lay speed stated in the material (0.8-1.0 km/day) did not constitute a change that would have a significant harmful impact on the environment, hence the change was not covered by the requirements of the Danish Environmental Impact Assessment Act concerning screening; see Annex 2 No. 13 of the Environmental Impact Assessment Act.

The Danish Energy Agency's response also stated that the use of a pipe-lay vessel with anchors would require an amendment of condition 19 of the permit, which assumes that pipe-laying will be conducted using a lay vessel with dynamic positioning (DP pipe-lay vessel). Amendment of condition 19 would assume that the Danish Energy Agency reaches a decision on the matter under Section 4 of the Danish Continental Shelf Act.

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For this reason, Nord Stream 2 AG has submitted a request for the amendment of condition 19 of the permit, with the effect that the company also has the option of using pipe-lay vessels with anchors, either independently or in combination with DP pipe-lay vessels.

Consultation response

On 1 May 2020, the Danish Energy Agency presented the material submitted to the Danish Maritime Authority, the Agency for Culture and Palaces, the Danish Environmental Protection Agency, the Danish Fisheries Agency and the Danish Ministry of Defence Estate Agency. With reference to the request dated 5 June 2020, the Danish Energy Agency resubmitted the material to the authorities, whereupon the authorities either stated that they had no remarks or further comments other than those previously submitted to the Danish Energy Agency. A summary of the authorities' consultation responses is provided below.

Danish Maritime Authority

The Danish Maritime Authority stated in the consultation response that the analysis performed by Rambøll appears to indicate that the pipe-laying could take place with an acceptable level of risk regardless of the vessel type (DP or anchor).

However, the Danish Maritime Authority prefers the use of DP pipe-lay vessels as used for the part of NS2 that has already been installed. This is partly because the area 'occupied' by an anchored vessel is significantly larger than for a DP vessel, and the lay speed is slower. This therefore causes greater inconvenience for shipping.

In connection with the work in and around TSS Adlergrund, the Danish Maritime Authority considers that guard/guidance boats should be present in order to alert and guide shipping traffic. As TSS Adlergrund is primarily situated in the German sector, any German requirements may also be expected to apply to the Danish part of TSS.

Nord Steam 2 AG's response

Nord Stream 2 AG will use guard boats regardless of the type of pipe-lay vessels used in connection with the work in TSS Adlergrund. This has also been coordinated with requirements imposed by the German maritime authorities.

Nord Stream 2 AG intends to engage in further dialogue with the German maritime authorities, and any other requirements which arise in connection with this will be coordinated with the Danish Maritime Authority and implemented in relation to the Danish part of the pipelines where relevant.

Agency for Culture and Palaces

The Agency for Culture and Palaces has no remarks on the submitted material.



The Agency for Culture and Palaces stated that the Viking Ship Museum is currently conducting a survey of the anchor corridor, and the Agency will be involved at a later date once an overview has been prepared in order to identify objects that are important and those that can be disregarded.

Nord Steam 2 AG's response

An anchor corridor survey was conducted during the periods 14 January 2020 to 2 February 2020 and 7 May 2020 to 2 June 2020. The results and any findings will be shared with the Viking Ship Museum and the Agency for Culture and Palaces to allow them to assess any findings of importance that should be avoided during the pipe-laying and anchor handling.

Danish Environmental Protection Agency

The Danish Environmental Protection Agency notes that the noise measurements in connection with the Swedish pipe-laying took place with the lay vessel *Solitaire*, which is a dynamic positioning vessel. However, the investigation did not determine the noise levels that would arise in connection with anchoring using an anchoring vessel. However, it is possible that the noise levels from the pipe-laying itself and some of the service vessels would be comparable.

The Danish Environmental Protection Agency thus understands that the change will result in a larger area of the seabed being disturbed. The Danish Energy Agency has stated that pipe-laying using anchoring vessels is covered by the previous environmental impact assessment. However, the permit for pipe-laying in Danish territorial waters does not cover anchoring vessels because, at the time the permit was granted, pipe-laying was to take place using dynamic vessels.

It is essential that any renewed permit for anchoring vessels contains a condition that the level of seabed disturbance is documented and reported to the Danish Environmental Protection Agency after the pipe-laying has been completed.

Nord Steam 2 AG's response

Condition 24 of the permit states: "Nord Stream 2 AG shall document the extent of physical loss, and physical disturbance of the seabed's overarching habitat types shall be evaluated, documented and reported to the Danish Environmental Protection Agency. Where possible, the extent of physical loss and physical disturbance shall be determined on the basis of the overarching habitat types defined in the Marine Strategy Framework Directive. Reporting of the extent of physical loss and physical disturbance of the seabed's overarching habitat types should take place no later than six months after completion of the construction works."



Nord Stream 2 AG acknowledges that this condition will also encompass disturbances caused by anchors if an anchored pipe-lay vessel is used.

Danish Fisheries Agency

The Danish Fisheries Agency has no remarks concerning the consultation.

Danish Defence Estates and Infrastructure Organisation

Regarding the document Potential Vessel Changes for the Remaining Construction in Denmark and Related Impacts in particular, the following remarks are made:

Regarding point 3.3.1, page 10:

It is stated in the document that “procedures for anchor handling in relation to CWA (Chemical Warfare Agents) for the rest of the pipeline installation will be developed in collaboration with the Royal Danish Navy”. Naval Command does not share the understanding of entering into such a development and cooperation. It has to be anticipated that a condition will be imposed which requires such procedures to be developed by the contractor alone prior to the work.

Regarding point 3.5.1, page 14:

It is also stated in the document that “Procedures for anchor handling to avoid contact with potential munitions will be developed in collaboration with the Royal Danish Navy”. Naval Command does not share the understanding of entering into such a development and cooperation. It has to be anticipated that a condition will be imposed which requires such procedures to be developed by the contractor alone prior to the work. In this context, Naval Command is the sole point of contact for any identification or detection of unexploded ordnances (UXO) or other similar objects.

Regarding point 3.5.1, page 14:

In connection with unexploded ordnances (UXO), it is stated in the document that, during the period 14 January 2020 to 2 February 2020, an anchor corridor survey was conducted relating to the section of the pipeline covered by the consultation in question. Naval Command was not aware of either this study or the results thereof in the consultation in question, but notes in the Danish Energy Agency’s email dated 7 May 2020 that reference was made to an initial study and that an additional investigation will be carried out, which will together form the basis for consolidated investigation results – results that will subsequently be shared with Naval Command.

At a general level, it must be noted with regard to the above that if any unexploded munitions (UXO) or similar objects are identified/encountered during the investigations, the work must be suspended immediately and the Joint Operations Centre contacted; see Section 14 of Order No. 1351 of 29 November 2013 on



safety of navigation in connection with engineering works and other activities, etc. in Danish waters.

In addition to the above considerations, it must be noted that the permits that have been issued and the contact details for the vessel or vessels that are to carry out the work must be made available to the Joint Operations Centre via the authority that issues the permit.

Nord Steam 2 AG's response

An anchor corridor survey was conducted covering the section of the pipeline route that this request concerns during the periods 14 January 2020 to 2 February 2020 and 7 May 2020 to 2 June 2020. The results and any findings will be shared with the Naval Command when they become available. Anchor patterns will be developed to avoid interactions with potential munitions and no munitions clearance is anticipated.

Procedures for handling potential chemical munitions and handling all equipment in contact with the seabed will be prepared by Nord Stream 2 AG's specialist contractor before installation work is commenced in Danish waters. The Naval Command shall be contacted if any unexploded munitions (UXOs) or similar objects are identified or detected (chance finds).

The Danish Energy Agency's assessment of pipe-lay vessels with anchors

The Danish Energy Agency maintains that the use of pipe-lay vessels with anchors, both independently and in combination with a DP pipe-lay vessel, is covered by the environmental impact report for the project, and that the use of a pipe-lay vessel with a lower lay speed (0.8-1.0 km/day) does not constitute a change that would have a significant harmful impact on the environment; hence, the change is not covered by the requirements of the Danish Environmental Impact Assessment Act concerning screening; see Annex 2 No. 13 of the Environmental Impact Assessment Act. The general public was presented with the assessment of the impact of both a pipe-lay vessel with anchors and a pipe-lay vessel with self-positioning in connection with the public consultation during the period May to July 2019. An assessment of the impact of activities in connection with the installation of Nord Stream 2 in relation to the habitat rules was carried out for issuing the permit dated 30 October 2019, and also covers the use of pipe-lay vessels with anchors both independently and in combination with a DP pipe-lay vessel; hence, no new assessment has been performed in this decision.

The Danish Energy Agency will reach a decision concerning the amendment of condition 19 in the permit dated 30 October 2019 under Section 4 of the Danish Continental Shelf Act. The decision relates solely to an amendment of condition 19.



Condition 19 was established because the pipeline route passes through an area (CWA area) where bottom trawling, anchoring and seabed intervention is not advised due to the risk of dumped nerve agents.

The pipelines were installed through the CWA area referred to above in December 2019. The section of the route that has not yet been installed in Denmark is at least 25 km away from the CWA area.

An anchor vessel was used in connection with the installation of Nord Stream in Denmark where the pipeline route passed 5 km from the CWA area.

Monitoring of Nord Stream did not detect any intact chemical munitions. Based on the monitoring results concerning the impact of Nord Stream, it was concluded that the impact on the marine environment with regard to disturbance of the seabed containing chemical munitions or their degradation products was either negligible or non-existent.

The environmental impact report for the project states that the highest occurrences and concentrations of chemical munitions and their degradation products in sediment may be found in the CWA area, and that the frequency of findings and concentrations of chemical munitions and their degradation products in sediment generally declines with the increasing distance from the CWA area.

The permit dated 30 October 2019 states that Nord Stream 2 AG is aware of precautions for the identification and handling of remains of munitions or objects which could be dangerous (UXO).

Based on the above and the submitted material, the environmental impact report, experiences from Nord Stream and the authorities' consultation responses, the Danish Energy Agency considers that the further installation of the pipelines may be carried out using DP pipe-lay vessels and pipe-lay vessels with anchors, either independently or in combination with each other, as the impact on health, safety and the environment due to the change has been assessed as minor, insignificant or non-existent. The relevant parameters that have been assessed as potentially affected by the type of pipe-lay vessel (how the vessel maintains its position) included water quality, biological receptors, chemical munitions, unexploded munitions (UXO), cultural heritage and shipping.

When assessing the amendment, the Danish Energy Agency particularly emphasised that:

- The remaining section of the pipelines to be installed in Denmark is not situated in the CWA area where anchoring is not advised.



- Nord Stream 2 AG is aware of precautions regarding the identification and handling remains of munitions or objects which could be dangerous (UXOs).
- Investigations have shown that the highest occurrences and concentrations of chemical munitions and their degradation products in sediment may be found in the CWA area, and that the frequency of findings and concentrations of chemical munitions and their degradation products in sediment generally declines with the increasing distance from the CWA area.
- The results and any findings from the anchor corridor survey of 14 January 2020 to 2 February 2020 and 7 May 2020 to 2 June 2020 will be shared with Naval Command when they become available to ensure anchor patterns are developed in order to avoid interactions with potential munitions.
- Procedures for handling potential chemical munitions and handling all equipment in contact with the seabed have been prepared by Nord Stream 2 AG's specialist contractor before installation work is commenced in Danish waters.
- If any unexploded munitions (UXO) or similar objects are identified/encountered, the work must be suspended immediately and the Joint Operations Centre contacted.

Decision

The Danish Energy Agency hereby reaches a decision to amend condition 19 of the permit to install Nord Stream 2 dated 30 October 2019, so that pipe-laying may be carried out using both pipe-lay vessels with anchors and DP pipe-lay vessels, either independently or in combination with each other. The decision to amend condition 19 has been reached pursuant to Section 4(1) of the Continental Shelf Act, and Section 2(1) of Executive Order No. 1520 of 15 December 2017 on certain pipeline installations in territorial waters and on the continental shelf. The decision may not be utilised until the appeal deadline of four weeks after announcement of the decision has expired, see Section 6(a)(4) and (5) of the Continental Shelf Act.

Pursuant to this decision, condition 19 will be amended from 'It is assumed that laying will be carried out using a lay vessel equipped with dynamic positioning (DP vessel).' to

19. It is assumed that laying will be carried out using a lay vessel with anchors and/or a lay vessel equipped with dynamic positioning (DP vessel), either independently or in combination with each other.

The decision relates only to the amendment of condition 19 and does not otherwise affect the permit, including the basis for the permit and the other conditions set out in the permit, which continue to apply.



Appeal guidance

The decision may be appealed in writing to the Danish Energy Board of Appeal, Toldboden 2, 8800 Viborg no later than four weeks after announcement of the decision, see Section 6(a) of the Continental Shelf Act. The decision shall be announced on the Danish Energy Agency's website www.ens.dk.

Parties eligible to appeal under Section 6(a) of the Continental Shelf Act include any party with a significant or particular interest in the decision, as well as local and national associations and organisations whose main aim is to protect nature and the environment. The same applies to local and national associations whose objects include the safeguarding of significant recreational interests if the decision affects such interests.

Yours sincerely,

Carl-Christian Munk-Nielsen