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Permit to operate a subsection of the Nord Stream 2 pipelines on the Danish continental shelf

In a letter dated 18 November 2019, Nord Stream 2 AG applied to the Danish Energy Agency for a permit to commence operation of a subsection of the Nord Stream 2 pipelines on the Danish continental shelf area in the Baltic Sea.

The application was submitted following the issuing of the Danish Energy Agency's permit of 30 October 2019 with decision of 6 July 2020 to amend condition no. 19 (hereinafter collectively referred to as permit of 30 October 2019) to construct two parallel natural gas pipelines on the Danish continental shelf.

The construction and operation of the pipeline installations to transport hydrocarbons in Danish territorial waters and on the Danish continental shelf requires a permit from the Danish Minister for Climate, Energy and Utilities. The right to grant a permit has been delegated to the Danish Energy Agency.

1 Permit

1.1 Decision

Based on the following and pursuant to Section 2 of Executive Order No. 1520 of 15 December 2017 on certain pipeline installations in territorial waters and on the continental shelf, the Danish Energy Agency hereby issues a permit to commence operation of the pipelines in respect of the subsection on the Danish continental shelf.

The permit does not cover the necessary permits, approvals, etc., pursuant to other legislation.



1.2 Conditions

The permit is issued subject to the following conditions; see Sections 2(1) and 4(1) of Executive Order No. 1520 of 15 December 2017 on certain pipeline installations in territorial waters and on the continental shelf:

1. Nord Stream 2 AG shall submit a schedule for commissioning of the pipelines. The schedule shall be submitted to the Danish Energy Agency before the pipelines are brought into operation.
2. Nord Stream 2 AG shall take out insurance to cover any damage that is caused by the activity carried out pursuant to the permit, even if the damage is accidental.
3. Nord Stream 2 AG shall operate the pipelines according to management system for Pipeline Integrity Management, and establish and maintain an operating organisation which at all times possesses the competences and resources necessary to ensure safe operation of the pipelines.
4. Nord Stream 2 AG shall ensure that the pipelines are operated within the parameters that form the basis for the design, including parameters for the composition of the natural gas flow and pressure and temperature conditions.
5. Nord Stream 2 AG shall establish and maintain a monitoring and safety system – Pipeline Protection System – which shall ensure that the pipelines are not overloaded, enabling the integrity of the pipelines to be maintained.
6. Nord Stream 2 AG shall regularly review the monitoring and inspection programme using a risk assessment approach based on observations made and the prevailing operating conditions.
7. The pipelines shall be maintained in such a way that maintenance tasks are performed within appropriate time frames on the relevant parts of the installation to ensure that the integrity of the installation is maintained.
8. Any unsupported spans which develop along the pipelines that are of inconvenience to the fisheries shall be remedied.
9. Upon request and through regular status meetings or agreed reports, the Danish Energy Agency shall be kept informed of the condition, maintenance, inspection and operation of the pipelines.
10. Hydrocarbon discharges from the pipelines and damage to the pipelines of significance to safety shall be reported to the Danish Energy Agency.

This translation is provided for convenience only, and in the event of any conflict between the wording of the Danish and English versions, the wording of the Danish version shall prevail in all respects.



11. Changes and updates to data regarding the position of the pipelines shall be sent to the Danish Energy Agency as they become available.
12. The Danish authorities shall supervise both the pipeline installation during operation and Nord Stream 2 AG's Pipeline Integrity Management system.
13. Nord Stream 2 AG shall maintain an emergency response system, which is fit to be approved by the relevant authorities. The emergency response system shall be capable of managing and, insofar as is possible, mitigating the consequences of an emergency, notifying relevant authorities, and providing information in an emergency. Nord Stream 2 AG shall notify the Danish Energy Agency without undue delay in the event of an emergency.

It should be noted that the conditions stipulated in the permit for construction of the Nord Stream 2 pipelines dated 30 October 2019 are to be complied with insofar as they are relevant to the operating permit or have yet to be met.

1.3 Appeal guidance

The decision may be appealed in writing to the Danish Energy Board of Appeal, Toldboden 2, DK-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)(1) of the Continental Shelf Act include any party with a significant and individual 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



2 Information from the application

Nord Stream 2 AG submitted the requisite application documents with a cover letter dated 18 November 2019. The application describes the operational conditions for operation of the pipelines and covers:

- 1 - Route Maps (Danish sector)
- 2 - DNV GL, NSP2 Offshore Pipeline Certification Verification Report
- 3 - Pipeline Operation Plan
- 4 - DFI resumé
- 5 - Design resumé
- 6 - Risk Assessment
- 7 - Risk Review Report
- 8 - Integrity Management system
- 9 - Inspection and Monitoring Strategy for Nord Stream 2
- 10 - Pipeline Intervention and Repair Strategy – Offshore
- 11 - Emergency Notification and Response Procedure
- 12a - Alert Condition Management and Follow-up Plans
- 12b - Alert Condition and Emergency Response Management
- 12c - Emergency Response Plans
- 12d - Notification Sheet – Alert Emergency Condition
- 12e - Terrorist Threat Record Sheet
- 13 - Environmental monitoring programme – DK
- 14 - Agreement between Nord Stream 2 AG and Danmarks Fiskeriforening Producent Organisation, etc.
- 15 - Third Party Legal and Contractual Liability Statement
- 16a1 - NSP crossing agreement
- 16a2 - NSP amendment of crossing agreement
- 16a3 - NSP Crossing Design Report
- 16a4 - NSP Crossing Detail Design Drawing
- 16b1 - BalticaSeg1 crossing agreement
- 16b2 - BalticaSeg1 amendment of crossing agreement
- 16b3 - Cables Crossing Design Report
- 16b4 - DRAWING-LINE A
- 16b5 - DRAWING-LINE B

On 11 March 2020, Nord Stream 2 AG submitted updated versions of:

- 5 - Design resumé
- 7 - Risk Review report
- 8 - Integrity Management system
- 11 - Emergency Notification and Response Procedure
- 16b3 – Cables Crossing Design Report, and submitted the crossing agreement with GazSystem concerning the crossing of the Baltic Pipe
- 16b6 – Baltic Pipe Agreement

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On 7 September 2020, Nord Stream 2 AG submitted updated versions of:

- 1 - Route Maps (Danish sector)
- 4 - DFI resumé
- 12a - Alert Condition Management and Follow-up Plans
- 12b - Alert Condition and Emergency Response Management
- 12c - Emergency Response Plans

2.1 Status and schedule

The Danish section of the pipelines will extend from approximately kilometre point (KP) 0 to approximately KP 146.5 (pipeline A) and KP 146.6 (pipeline B), where KP 0 is located on the Danish–Swedish border north-east of Bornholm.

Pipelines A and B were constructed through to KP 77.8 and KP 97.6 respectively in November–December 2019. Pipeline A thus remains to be constructed in Danish territorial waters from KP 77.8–146.5, along with pipeline B from KP 97.6–146.6.

The pipelines are expected to be brought into operation after precommissioning and the completion of pressure testing. No final date for commissioning has yet been submitted.

2.2 Management system

Nord Stream 2 AG will be responsible for operation of the pipelines and, as part of its application, has provided a description of how the operation will take place, including with regard to the management system, responsibilities and functions within the organisation.

The main control room is located in Steinhausen, Switzerland. There will be a back-up control room in Cham, Switzerland, which is separate from the main control room.

The operation will be monitored through a Pipeline Control and Communication System (PCCS), including monitoring of the pressure and gas temperature and composition in the pipelines. This will apply both during normal operation and in the event of unscheduled events or emergencies. The process parameters for monitoring have been agreed with both the supplier and recipients of gas deliveries.

Nord Stream 2 AG has set up an emergency response system for operation of the pipelines. This system will be adapted to the conditions prevailing in each country, including Denmark.



2.3 Operation, maintenance, inspection and monitoring

In the “Design, Installation and Fabrication (DFI) Resume Project Document”, Nord Stream 2 AG has provided:

- a description of the pipeline system,
- a compilation of all design, fabrication and installation data, with reference to associated detailed documentation of importance to the operating phase, and
- recommendations and requirements to and has created the underlying information basis for the operation, inspection, integrity assessment and maintenance of the pipelines.

DFI will constitute an ‘as-laid basis’ for the future operation and thus contains the as-built status of the pipelines.

The Maximum Allowable Operation Pressure (MAOP) pressure control system is described in the Pipeline Operation Plan. This pressure control system has been designed to subdivide the offshore pipelines into three pressure classes with an MAOP of 218 barg in the first section of the pipelines, 198.0 barg in the second section, and 175.5 barg in the third. MAOP will be lower than the design pressure for each of the sections. The entire Danish subsection is located in section 3.

Nord Stream 2 AG has carried out a risk assessment based on the identified relevant hazards (threats) within these groups:

- corrosion,
- third party impacts,
- structural,
- natural,
- other external environment factors.

All risks have been classified into the categories “low” and assessed by the company as being acceptable. It has also been concluded that there is no need for further protective measures for either pipeline, as the risk to humans, the environment and assets is within the acceptable level at all times. This forms the basis for the inspection and monitoring programme.

2.4 Final positions of the pipelines

Nord Stream 2 AG has submitted the anticipated positions of the pipelines. The final positions (coordinates) of the two pipelines (as-built) will be reported to the Danish Energy Agency, the Ministry of Defence and the Danish Geodata Agency, as soon as they become available after construction of the pipelines has been completed.



3 The Danish Energy Agency' remarks and assessment

3.1 Status and schedule

As construction of the Nord Stream 2 pipelines has not been completed at the time of granting of the permit for operation of the pipelines and several conditions in the construction permit of 30 October 2019 are of relevance to the operating phase, it is assumed that the conditions stipulated in the permit of 30 October 2019 will be maintained insofar as they are relevant to the operating permit or have not yet been met.

Nord Stream 2 AG shall notify the Danish Energy Agency of the date of commissioning of the pipelines before they are actually commissioned (see condition 1).

3.2 Management system

The Danish Energy Agency has noted that Nord Steam 2 AG has established a management system for the operating phase.

The Danish Energy Agency has similarly noted that Nord Steam 2 AG has established an emergency response system for the operating phase. Nord Stream 2 AG shall maintain an emergency response system which is capable of managing and mitigating the consequences of an emergency, notifying relevant authorities, and providing information in an emergency, including notifying the Danish Energy Agency without undue delay in the event of an emergency (see condition 13).

The Danish Energy Agency considers it necessary, in order to facilitate maintenance of the pipeline integrity, for Nord Steam 2 AG to identify internal and external risks relating to the integrity of the pipelines on an ongoing basis, and through its management system, monitor and control these risks and minimise them insofar as is reasonably practicable (see conditions 3, 4 and 7).

The Danish Energy Agency furthermore considers it important that the operating organisation possesses the necessary competences and resources to carry out the operation and that the delegation of responsibilities is unambiguous. Nord Stream 2 AG shall therefore operate the pipelines according to a management system for Pipeline Integrity Management and maintain an operating organisation which at all times possesses the competences and resources necessary to ensure safe operation of the pipelines (see condition 3).



3.3 Operation, maintenance, inspection and monitoring

Nord Stream 2 AG shall take out insurance to cover any damage that is caused by the activity which is carried out pursuant to the permit even if the damage is accidental (condition 2).

The Danish Energy Agency has noted that Nord Steam 2 AG has

- drawn up plans for the way in which the operation will be managed,
- established a maintenance system, and
- prepared an inspection and monitoring programme for the pipelines.

The Danish Energy Agency considers that the monitoring and management of risks relating to maintenance of the pipeline integrity is essential to the maintenance of the pipeline integrity. As part of this, it is essential for a monitoring, management and inspection programme to be established for circumstances which could compromise the integrity of the pipelines and thereby safety (see conditions 5 and 6).

Any unsupported spans that develop along the pipelines which are of inconvenience to the fisheries shall be remedied (see condition 8).

3.4 Final positions of the pipelines

Once the pipelines have been constructed, Nord Stream 2 AG shall conduct an as-laid survey. The Danish Energy Agency considers that the results of subsequent surveys which give rise to changes shall be submitted for assessment by the Danish Energy Agency and form documentation reflecting the final positions of the pipelines (see condition 11).

3.5 Other considerations

The Danish authorities will supervise the pipeline operation as well as Nord Steam 2 AG Pipeline Integrity Management System (see conditions 9, 10 and 12).