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§ 9 STATEMENT REGARDING RUSSIA-GERMANY OFFSHORE NATURAL GAS PIPELINE IN THE EEZ OF FINLAND – ABOUT ENVIRONMENTAL IMPACT ASSESSMENT PROGRAMME

In a letter dated 17 November 2006, the Uusimaa Regional Environment Centre has requested a statement by 26 January 2007 regarding the EIA programme for the Russia-Germany offshore natural gas pipeline in the EEZ of Finland. The Uusimaa Regional Environment Centre is the official point of contact in the EIA procedure for the project of Nord Stream AG, building a offshore natural gas pipeline from Russia through the Gulf of Finland and through the Baltic Sea into Germany, and will declare its responsibilities of the EIA programme. The programme has been set on public display in the Finnish coastal municipalities around the Gulf of Finland, i.e., the board's territory in Hamina and Virolahti.

The assessment programme presents the impacts that will be evaluated and how the assessment will be realised. Furthermore, the programme gives the basic data for the project, describes the current state of the environment, the alternatives to be studied, the permits required and gives a plan regarding information and schedule of the project.

The EIA programme has been compiled by Ramboll Finland Oy based on settlements compiled by Rambøll Danmark A/S.

A similar assessment plan for the impacts of the project in the entire Baltic Sea region is included as an appendix to the EIA programme. The transnational convention on assessment of environmental impacts or the so-called Espoo Convention of the UN Economic Committee for Europe will be applied to the project. Based on the convention, Finns have the opportunity to state their opinions also regarding the environmental impacts of the project as a whole. The EIA procedure in line with the Finnish legislation will be applied to the project part applying to Finland.

### **Project**

The project consists of building, testing, operating and decommissioning a offshore natural gas pipeline of approximately 1,200 kilometres. The gas transit system comprises two parallel offshore gas pipelines and a service platform above sea level that will be built on the shore of Gotland. The gas pipeline will run from Russia, the Portovaya Bay close to Vyborg, to Greifswalder Bodden on the German coast. The pipeline will run in the territorial waters of Russia and Germany as well as in the EEZs of Finland, Sweden and Denmark. Diameter of the pipes that will be installed approximately 50 metres apart will be 1,220 mm and length of the pipeline 1,200 km. The pipeline part that will run in the EEZ of Finland will be approximately 369 km in length. The pipeline part in the EEZ will be outside the Finnish territorial sea limit. The planned gas pipeline will be installed by lowering it to the bottom of the sea. The pipe will be backfilled or placed in a pipe trench in some places. The planned pipeline will run approximately

50–90 metres below the sea level in the EEZ of Finland. Average depth of the pipeline under review in the Gulf of Finland will be approximately 70 metres.

The gas pipeline design pressure will be 220 bar, and the gas pipeline wall thickness approximately 38 mm. The gas pipelines will be protected by anti-corrosion coating. The anti-corrosion coating will be covered with a reinforced concrete protective structure of 40–150 mm. The concrete will give the pipelines added weight so that they will remain stable on the seabed both during installation and during operation. Single pipe connections that will be 12 metres long will be delivered to lay vessels where they will be welded together and lowered to the seabed.

Based on preliminary assumptions, approximately 50–100 km of pipeline will be lowered to the seabed and backfilled in the EEZ of Finland. It is estimated that the installation of the pipe will cause impacts in a corridor of approximately 1,500–1,600 m around the pipeline. The seabed corridor that will be directly impacted by the seabed forming needed in installing the pipeline will be approximately 100–150 metres wide.

Close to ship channels and shores and in places where the pipeline crosses other cables or pipelines, the gas pipeline will be buried in an offshore trench. The pipeline will be usually buried to a depth of one metre.

Nord Stream AG, a company established by gas companies (Russian Gazprom JSC as well as German E.ON AG and BASF AG), will be responsible for the project.

The plan is to commission one of the offshore Nord Stream natural gas pipelines in 2010 and to have the second pipeline in operation by 2012. The gas pipeline design life time has been estimated at 50 years.

The project aims at responding to the increased need of natural gas in the European Union.

#### **Alternatives studied:**

The alternatives studied in the EIA procedure are:

VE 0: Not implementing the project, i.e., not constructing a gas transit system between Russia and Germany.

VE 1: Constructing a two-pipe natural gas transit system consisting of two pipes in line with the Nord Stream project plan from Vyborg via the Baltic Sea to Greiswald, Germany. Gas transit capacity 55 billion cubits a year.

#### **Environmental impacts of the project**

Implementation of the project may cause environmental impacts during the following phases: construction, actions during pre-commissioning of the pipeline, operation of the pipeline and decommissioning.

The EIA focuses on the most major impacts that are evaluated as:

- Impacts to quality of water and seabed
- Impacts to natural conditions
- Impacts to nature reserves
- Impacts to shipping
- Impacts to human living conditions and safety
- Impacts to cultural heritage
- Impacts in tourism and recreational use
- Impacts in utilising natural resources

The most notable impacts will probably be caused by installation of the pipeline, such as dredging, blasting and dumping.

### **Participation**

The assessment programme was finished in November 2006. The programme will be on display 27 November 2006 – 26 January 2007. Opinions and statements about the programme may be issued during the period of display for public inspection. After this period, the official point of contact, the Uusimaa Regional Environment Centre, will issue a statement regarding the environmental programme.

Public information events will be arranged in four localities during the programme's period of display: Helsinki, Hanko, Kotka and Turku.

Based on a preliminary schedule, the environmental impact statement will be finished at the end of July 2007. When the environmental impact statement has been finished, it will be on public display for approximately two months. During this period of display, four separate public information events will be arranged, and opinions and statements regarding the statement can be issued. When the period of display comes to an end, the official point of contact will issue a statement regarding the environmental impact statement.

The environmental impact statement will include a summary of the project, a description of the current state of the planned area, project alternatives, assessment of the impacts and methods used, the necessary permits and decisions, uncertainties, comparison of the alternatives, mitigation and prevention of disadvantages as well as a monitoring programme.

A summary of the monitoring programme is included as an appendix to the agenda. The entire monitoring programme is available in the meeting and in the Environmental Office.

Preparer: Environmental Protection Secretary in Chief Kirsi Seppälä, tel. +358 (0)5 749 5032.

**Proposal of Environmental Manager:**

The assessment programme includes a summary of the project, a description of the current state of the planned area, project alternatives, assessment of the impacts and methods used, the necessary permissions and decisions, uncertainties, comparison of the alternatives, mitigation and prevention of disadvantages as well as a monitoring programme.

It is quite an extensive project, and it is difficult to sufficiently accurately anticipate the environmental impacts. The project will cause impacts in an extensive area, and it is a question of a sensitive sea area that is already suffering from extensive pollutant loads. There are important nature conservation areas, such as important staging areas with valuable avifauna and it is an important migratory route for birds. When planning actions increasing the pollutant load and risks in the area, it is important to base the decisions on adequate knowledge of the special conditions of the area and the project's impacts under these conditions. Some of the environmental impacts may be at least partially unforeseen and the impacts may extend over a very extensive area. The limitation made for the area in which indirect impacts may occur seems to be adequate: it has been extended for the entire southern coast of Finland.

Impacts during construction will probably be the most major actions changing the environment. Risks and accident factors, such as disadvantages and impacts to the sea caused by possible breakdown of the pipeline, are closely connected to the impacts during operation. At least some ex ante assessments and calculations for the impacts of decommissioning of the natural gas pipeline should be compiled.

Especially attention should be paid in studying heavy metal contents and contents of other pollutants in the sediment as well as in how much and into how wide an area the impacts connected with building the natural gas pipeline will release the above-mentioned agents and cause detrimental impacts to the water system, species and food chain. Pollutant contents in the seabed should be studied as specifically as possible and adequately many sampling points should be added.

The impacts of the construction work in the quality of water as comes to nutrients that will be released from the sediment have not been adequately clearly pointed out. The impacts of the nutrients that will be released from the sediment should be included in the assessment of impacts. The various routing alternatives for the pipeline must be studied in an adequately extensive area, by including alternatives outside the pipeline corridor when necessary so that there will be minimal need for seabed rectification. Any alternative working methods must be studied taking into account minimising of the disadvantages.

Dredging in connection with the construction work will cause nutrients to be released from the sediment and thus further increase algae growth. The increase in algal blooms, in its part, will have a detrimental impact on recreational use and tourism, for example. The impacts of the project in

algae growth should be more clearly studied in the assessment programme and this should also be included in the reviews of impacts.

In addition to the working methods to be used, attention must be paid in timing of the work. The pipeline will be constructed during the period when there is no ice cover, starting in the spring and ending in the autumn. Since areas important to the avifauna are located close to the pipeline routing, it is important not to perform any disturbing work close to the valuable staging areas during the nesting season.

All actions whose impacts may reach Finland should be studied, such as discharging of water used in pressure balancing into the sea. It is also important to study the impacts that will spread with the currents: these may cause the affected area to be very extensive.

Comprehensive assessment of the risks should be more accurately and specifically studied as a separate item.

The assessment programme does not show the comparison method that will be used in comparing the alternatives.

**Resolution of the Environmental Board:**

The proposal was approved.

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For reference:  
Hamina Town Council  
Virolahti Municipal Government  
Uusimaa Regional Environment Centre

Authenticated  
Hamina 26 January 2007

(signature)  
Eija Hanski  
Archivist/Recording Secretary