

PRESS RELEASE

Ambient Underwater Noise Levels Studied at Norra Midsjöbanken During the Construction of the Nord Stream Pipeline

- **New findings contribute to the knowledge about underwater noise levels close to the Natura 2000 area at Norra Midsjöbanken**
- **Study conducted by the Swedish Defence Research Agency with financial backing from Nord Stream and the Swedish Nature Protection Agency**
- **Nord Stream's construction works only marginally increased the underwater noise levels in the Baltic Sea**

Zug, 18 September, 2012. A study has been conducted in cooperation between Nord Stream, the Swedish Defence Research Agency (FOI) and the Swedish Nature Protection Agency, in order to establish the underwater noise levels in the sea close to the Natura 2000 area at Norra Midsjöbanken, to the south of Gotland. Noise emanating from regular commercial maritime traffic as well as Nord Stream's construction works has been assessed. The study was conducted from January to April this year, and the final report on the results is now available.

The report confirms that Nord Stream's construction works caused an increase in the underwater noise levels which is comparable to that of passing commercial vessels. The construction works were carried out during a limited period of time and in a limited area. The ambient underwater noise could mainly be attributed to the vessels involved in the construction works, e.g. the pipe-lay vessel or the anchor handling tugs, and to a lesser extent from other construction related work such as trenching or placing the pipe on the seabed.

"We have been able to apply our unique competence within marine environment research in order to successfully conduct measurements in an area in the middle of the Baltic Sea. During the study, we have developed new methods of analysis for the purpose of measuring underwater noise levels as well as noise from commercial maritime shipping. We were surprised to learn about the high levels of underwater noise caused by passing vessels using the route close to this Natura 2000 area," says Torbjörn Johansson, Researcher in underwater acoustics with the FOI.

“The scientific knowledge about the biological effects from underwater noise is in an early phase; this study however contributes new information concerning the situation in the Baltic Sea. According to the EU Marine Strategy Framework Directive one criterion for a good environmental status is underwater noise levels. Activities which cause such significant underwater noise levels that they could damage the marine eco-system should be constrained in terms of time as well as impact area, so that the noise will not cause lasting negative effects on the environment. This study provides us with a good starting point for our future work to preserve and protect the marine environment,” says Sverker Evans at the Marine and Water Management Agency (formerly working for the Nature Protection Agency).

“We are very pleased to be able to contribute to the improved knowledge concerning the underwater noise levels at Norra Midsjöbanken, a Natura 2000 area situated fairly close to a route with intense maritime traffic. At the same time, we have been able to verify the assessments from Nord Stream Environmental Study – the corner stone of our application to the Swedish government to construct the natural gas pipeline,” says Nicklas Andersson, Head of Permitting Sweden and Denmark, Nord Stream AG.

Fish and marine mammals have good hearing and they depend on sound for communication, navigation and for finding food. High ambient underwater noise levels may therefore be harmful to marine wildlife. Future developments of infrastructure at sea, as well as increased maritime shipping, therefore make it critical to increase the present limited knowledge about underwater noise levels in the seas.

The report “Ambient Underwater Noise Levels at Norra Midsjöbanken During Construction of the Nord Stream Pipeline” [can be downloaded from our library.](#)

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Notes to editors

Nord Stream AG is responsible for the planning, construction and subsequent operation of natural gas pipelines which link Russia and the European Union through the Baltic Sea. The European Union's annual natural gas imports in 2009 were approximately 312 billion cubic metres (bcm) and are projected to increase to over 523 bcm by 2030. By then, the EU will need additional gas imports of 211 bcm per year (Source: IEA, 2011). Nord Stream will meet more than a quarter of this additional gas import requirement by connecting the European gas pipeline network to some of the world's largest gas reserves. The project will make an important contribution to long-term security of supply and be a milestone of the energy partnership between the European Union and Russia.

The first of Nord Stream's two parallel pipelines became operational in November 2011. Each line is approximately 1,220 kilometres long, providing a transport capacity of some 27.5 bcm per year. Line 2 has also already been laid and is currently being prepared for operation. Full capacity of 55 bcm per year will be reached when the second line goes on stream in late 2012 as part of the integrated twin pipeline system. This capacity is enough to supply gas to more than 26 million European households.

Nord Stream AG is an international joint venture established for the planning, construction and subsequent operation of offshore gas pipelines through the Baltic Sea. Russian OAO Gazprom holds a 51 per cent stake in the joint venture. The German companies BASF SE/Wintershall Holding GmbH and E.ON Ruhrgas AG hold 15.5 per cent each, and the Dutch gas infrastructure company N.V. Nederlandse Gasunie and the French energy company GDF SUEZ S.A. each hold a 9 per cent stake.

Nord Stream is included in the Trans-European Energy Network Guidelines (TEN-E) of the European Union. In 2006, the project was designated a "project of European interest" by the European Commission, the European Parliament and the Council of the European Union. Nord Stream is, therefore, recognised as a key project for meeting Europe's energy infrastructure needs.

Construction of the first Nord Stream Pipeline started in April 2010, after completion of environmental studies and planning and an Environmental Impact Assessment (EIA) along the entire pipeline route. Three pipe-laying barges were commissioned to work on the project: Saipem's Castoro Sei carried out the majority of the construction in the Baltic Sea. The Castoro Dieci completed its operations in German waters, where it constructed both pipelines in the German landfall section; Allseas' Solitaire handled construction in the Gulf of Finland as a subcontractor of Saipem. The first pipeline became operational in November 2011, the second one is scheduled to become operational in 2012.

No intermediate compressor station: Nord Stream was able to design its offshore pipeline to operate without an intermediate compressor station, but with three different design pressures and pipe wall thicknesses as the gas pressure drops over its long journey from Russia to the landfall in Germany. The connection by hyperbaric tie-in of these three pipeline sections was carried out at the two offshore locations where the design pressure changes from 220 to 200 bar and from 200 to 177.5 bar respectively. The connection of the Gulf of Finland and Central sections of the first pipeline took place off the coast of Finland at a sea depth of approximately 80 metres, and the connection of the Central and South Western sections off the Swedish island of Gotland at a depth of approximately 110 metres, and the three sections of the second pipeline will also be connected underwater at the same locations this summer.