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DOOŚidk-082/371/09/

**Courtesy translation**

In reply to the letter dated March 9, 2009 concerning the submission of the Environmental Impact Assessment documentation for the Nord Stream gas pipeline (hereinafter: the documentation), I should like to inform you that on 15 November 2008 the *Act of 3 October 2008 on the Provision of Information on the Environment and Its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments (Official Journal of the Laws, No 199, Item 1227)* entered into force, establishing new administration authorities competent for the environmental impact assessment procedure. In accordance with the new legal regulations, at present, it is the Director General for Environmental Protection who is responsible for ensuring the participation of the Republic of Poland in the procedure for impact assessments in a transboundary context, in cooperation with the Regional Directors for Environmental Protection, who act at the level of the individual Voivodships.

Referring to the procedure concerning the northern pipeline I would like to inform you kindly that according to Art. 4(2) of the Convention on Environmental Impact Assessment in a Transboundary Context (Journal of Laws of 1999, No. 96, Item 1110 – Espoo Convention), both the public opinion and authorities involved have been notified and have been given access to the documentation submitted.

Public participation in the Zachodniopomorskie, Pomorskie and Warmińsko-Mazurskie Provinces was ensured by Regional Directors for Environmental Protection who forwarded information concerning the comments and proposals submitted to the Directorate General for Environmental Protection. Furthermore, public administration authorities, scientific bodies and non-governmental organisations were requested to prepare their opinions, and the position of the National Committee for Environmental Impact Assessments (Directorate General for Environmental Protection consultative and advisory body) was taken into consideration. The latter was developed based on the analysis of documentation and co-reports concerning, among other things, assessment of the environmental impact on natural values and evaluation of risks related to the ammunition found on the seabed and resulting from the dislocation of sediments during project implementation.

The content of the documentation received on March 9, 2009 **is insufficient to evaluate in a clear manner all aspects of the potential environmental impact of the project, including the possible transboundary impact; furthermore, it does not fully conform to the requirements specified in the position of the Republic of Poland dated February 16, 2007** which was supplemented by two further positions dated January 18, 2008 and January 23, 2009.

Considering the foregoing, **it is necessary in the opinion of the Polish authorities to supplement the data contained in the documentation with a number of aspects provided below and to determine a further period for the analysis of new evidence (with another opportunity for the participation of the public and interested parties)**. The documentation as it is at present cannot be regarded as complete. Therefore, the next stage of the procedure, provided for in Article 5 of the Espoo Convention, cannot be initiated. (According to the Article 5, the party of origin shall, after completion of the documentation enter into consultations with the affected party concerning, inter alia, the potential transboundary impact of the proposed activity and measures to reduce or eliminate its impact).

In particular, the following matters appear to be of the greatest concern after the examination of the documentation and comments submitted.

## **1. General comments:**

**1.1 Postponing decisions concerning certain** design solutions which may influence the environment or the application of mitigation measures **till further stages** (after the completion of the environmental impact assessment and granting licenses for project implementation).

According to the judicial practice of the European Court of Justice, environmental impact assessment is to be conducted when all consequences of project implementation relevant for the environment can be identified (DelenaWells, C-201/02). Furthermore if complete assessment of the environmental impact is not possible at the current stage, then the environmental impact assessment is to be conducted again at subsequent stages (Crystal Palace, C-290/03).

The examples of matters not settled in the documentation in a conclusive way include the following:

- the evaluation of the ammunition found in the anchoring zone has not been completed (see Item 10 of the position dated February 16, 2007 and Item 3 of the position dated January 18, 2008);
- lack of clear information concerning the degree of compliance with the recommendation about the restriction of the performance of construction works during the cod spawning period (see Item 3 of the position dated January 18, 2008);
- lack of detailed information concerning the operations to be performed at the stage of putting the pipeline into service (Chapter 4.7 of the documentation) for example - lack of a clear decision concerning the use of sodium compounds in the pressure test and the detailed environmental impact assessment, (Chapter 9.2.2) – (see item 8 and 19 of the position dated February 16, 2007);
- lack of a clear description of the procedure to be followed once the gas pipeline has been withdrawn from service (Item 19 of the position dated February 16, 2007).

**1.2. Lack of the possibility of verifying the level or extent of respective impacts declared in the documentation** as the description of study procedures is insufficient or study results are not directly available (see the position of the Republic of Poland dated January 23, 2009, page 2, paragraph 4).

The examples may concern, among other things, the lack of the description of procedures for the sampling and analysis of sediments and their thickness with respect to, among other things, the content of chemical weapons (such as lumps of yperite) in certain sections (with access to study results) or the lack of sufficient information concerning the assumptions taken and their sources which would subsequently be used for the mathematical modelling of the propagation of suspension formed during construction works (the method for the determination of suspension emission coefficients and those of the load of the suspension emitted assumed has not been specified; the coefficients assumed are not reliable, given that data specific for the Baltic Sea are available<sup>1</sup>).

**1.3. The assessment was conducted mainly with respect to the defined ecoregions or within the boundaries of protected areas. There is a lack of assessment at the Baltic Sea ecosystem level or going beyond the boundaries of specific areas with respect to certain elements of the environment.**

The assessment of the direct impact of the undertaking, analysed within the confined boundaries of defined regions and areas, is not fully justified, for example with respect to animal species which migrate between such regions and areas, including the species protected within the Natura 2000 network which frequently stay outside the boundaries, such as fish, birds and mammals.

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<sup>1</sup> According to the data available for the Bay of Pomerania (Siefert et al., 2008; Kohls et al., 2004) sedimentation rate is within a range of 0.1-0.0001 cm/s for the fluff type suspension and 0.5 cm/s for fine sand.

**2. Failure to include the requests put forward by the Republic of Poland and concerning the solutions for restrictions on Polish sea transport** (Item 12 of the position of the Republic of Poland dated February 16, 2007) **and conclusions from the analysis of the impact of the project for existing and planned investments** (Items 15 and 16 of the position).

**2.1. The planned gas pipeline intersects with the fairway which leads to the approach fairway to the harbours of Świnoujście and Szczecin** (navigation fairway recommended by Helcom MARITIME<sup>2</sup>). If a gas pipeline whose diameter may be close to 1.4 m is laid directly on the seabed at a depth of 14 to 15 m, safe use of the fairway by vessels which navigate it currently (draught of up to 13.2 m) will not be possible in a safe manner and it will restrict the planned development of the port, notified in the 2007 position (it is planned for the port to be used by vessels with greater draughts). Furthermore, if the gas pipeline is laid directly on the seabed at a point of intersection with a fairway with a heavy traffic, the risk of a major failure is increased, which practically was not included in the documentation submitted.

**If the route of the gas pipeline is to be maintained, it is absolutely necessary to bury the gas pipeline under the seabed and include the environmental impact assessment of the new solution.**

Furthermore, it is noted that respective safeguards have been ensured for the other points of intersection with fairways (Volume 2, Item 4.5.2), for example to the south-east of Gotland (at larger depths) by dumping the rock material. No solution has been proposed for the fairway leading to the Szczecin harbour but **it should be noted that due to the smaller depth and use of the fairway by large-draught vessels, dumping the rock material is unacceptable in this case.**

**2.2.** In addition in case of the fairway in question, situated outside of the territorial waters of Germany, the possible use of the vessels with a draught of up to 15 metres should be assumed (after the completion of necessary dredging works) in the route leading from the Świnoujście harbour roadstead and farther north. This means that **the depth on which the pipeline is to be laid is relevant also within the area to the north of the harbour roadstead.**

**Therefore, it is necessary to provide detailed relevant information with the current and detailed bathymetric charts for the area located to the north of the Świnoujście harbour roadstead with the route of the pipeline and planned depth above the pipeline indicated.**

2.3. Furthermore, the information concerning **restrictions on navigation on the fairway leading to Świnoujście during construction works must be specified.**

2.3. With respect to the other planned investments, it is noted that as follows from the attached graphics the investor has knowledge about the **Baltic gas pipeline** to be developed.

However, there is no indication in the documentation that any need for the use of special measures has been considered with respect to the fact that routes of both pipelines may intersect. According to the documentation "The intersections are expected to be designed in a typical manner based on the principle of pipeline separation and protection. Actual factors will constitute some of the design minimum initial requirements, such as pipeline diameter, seabed conditions as well as planning and infrastructural aspects, etc. The design of the intersection may be based on the dumping of the rock material or fitting a protective support at the intersection site" (see Chapter 4.5.3, Page 174 of the Report). However, considering the parameters of both installations (the diameter of the Baltic gas pipeline is 610 mm and the inner diameter of one pipe of the Nord Stream gas pipeline is 1220 mm and the outer diameter is approx. 1.4 m), the use of the conventional intersection method would mean that a protective structure would have to be constructed with a height of approx. 3 to 4 m above the seabed surface. Considering the small depth of the area where the two pipelines are to intersect and the need for the minimisation of environmental impacts and coordination of works

<sup>2</sup> According to Mariners' Routing Guide Baltic Sea (a map No 2911 - Bundesamt für Seeschifffahrt und Hydrographie, used by HELCOM)

related to the construction of the intersection, **the planned Nord Stream gas pipeline should be bury under the sea bed, so that the top surface of the former (Nord Stream gas pipeline) is at least 0.3 m below the natural seabed level.** Owing to the proposed solution, the thickness of the rock coat or another protective structure could be reduced by approx. 1.5 to 2.5 m.

**3. The requests submitted by the Republic of Poland (position dated January 23, 2009) concerning the method for the modelling of pollutant and suspension emissions from the seabed due to intervention works on the seabed were not included and the issues indicated in Items 6 and 7 the position dated February 16, 2009 were not referred to in a sufficient manner.**

The outline of matters and issues related to the disturbance of seabed sediments, which failed to be included or were solved in incorrect ways according to the Republic of Poland, include:

### **3.1. Emissions of suspensions to seawater:**

The method and reasons for the determination of unit coefficients for the emissions and loads of suspension emitted were not specified; the coefficients adopted are incorrect for the conditions occurring in the Baltic Sea. The modelling results do not reflect the risks.

The sedimentation rate of fine-grained suspension has been overestimated. This translates into the underestimation of the extent of the zone under the impact of suspension emissions from the seabed.

There is no estimation of the consequences of long-distance transport of suspensions according to the model of multiple sedimentation and re-suspension in shallow water areas. Beaches can be hardened and fairways may be silted up. Environmental impacts concern the degradation of bottom fauna habitats. Transboundary impacts cannot be excluded.

### **3.2. Dilution of interstitial water and desorption of pollutants from suspensions:**

The emissions of organic matter and certain substances, such as hydrogen sulphide, dioxins and biogenic substances, have not been considered. It is necessary to include quantitative assessment with respect to biogenic substances, among others. The assessment of heavy metals needs to be supplemented as the authors of the NS documentation assumed incorrectly that concentrations for the bulk sediment are those characteristic of the suspension emitted from the sediment to water. Concentrations which describe the fine-grained fraction of the sediment and the fluff-type suspension should have been used instead. Therefore, the resulting risks have been underestimated by an order of magnitude at least.

**4. The analysis of the impact of the undertaking on the Natura 2000 network areas has not been included in a sufficient manner (Item 11 of the position of the Republic of Poland dated February 16, 2007 and the position dated January 23, 2009).**

The assessment should be supplemented, with consideration given to cumulation of impacts coming from other investments (also in the areas of germen water), the indirect and secondary impacts and the necessary modification of the modelling of the effects of sediment re-suspension. The possible negative impact on habitat 1110 (sea sandbanks) should be considered, which is threatened for example by the sedimentation of the fine-grained fraction (habitat protected for example within area PLH 990002 Bay of Pomerania Refuge). The analysis should take into account the possible dumping site situated near to the Usedom island.

Furthermore, considering the need to protect the integrity and cohesion of the Natura 2000 network areas, it would be justified in the report to refer collectively to the impact on the Bay of Pomerania area both at the German and the Polish side of the border.

The necessity of the additional information is especially noticeable in view of Methodological guidance on the provisions of Article 6(3) and 6(4) of the habitat Directive 92/43/EEC ("Assessment of plans and projects significantly affecting Natura 2000 sites"). According to this publication "Where there are gaps in information, it will normally be necessary to supplement existing data with further survey fieldwork" (chapter 3.2.2, page 25 of the guidance)". Furthermore authors of the publication notice that: "Data obtained from field surveys should provide an objective basis for the assessment process. Sampling methods should be repeatable and, in most cases, quantitative data should be obtained. (...) The initial information is provided by the Natura 2000 data forms; the detailed knowledge local experts may provide and the findings of previous fieldwork within the area should be sought" (Annex I, chapter 2.2, page 57 of the guidance)

There is not enough information in the documentation to exclude the possible significant negative impact of the investment on the Natura 2000 network, which indicates the need of more deep variant analysis of the investment.

**5. According to the Republic of Poland, the analysis of the impact and impact mitigation measures with respect to sea mammals, in particular porpoises (Item 11 of the position dated February 16, 2007), has been conducted incorrectly.**

The porpoise is a protected species within the Natura 2000 network, and its protection is necessary also beyond the extent of the Natura 2000 areas at the level of the Baltic Sea and works planned within the undertaking.

The species is strictly protected in Poland. Within the classification of danger developed by the International Union for Conservation of Nature, the status of the porpoise is Endangered. The latest evaluation of the condition of the Baltic porpoise subpopulation (reproductively separated from the other populations of the species which inhabit the Danish straits and the North Sea) indicates that their status has deteriorated to Critically Endangered.

Considering the foregoing, it is noted that the low number of individuals of the species along the pipeline route is not a condition which would allow any underestimation in the assessment of the potential impact on the species prepared.

The information about the potential impact on the species and planned mitigation measures should be more precise (for example the location and type of noise-generating works should be indicated, such as intentional and accidental ammunition detonations and seabed levelling).

**6. The documentation fails to include the necessary scope of analysis with respect to the risks related to the ammunition dumped in the seabed (the scope of analysis was specified in Item 10 of the position dated February 16, 2007 and Item 3 of the position dated January 18, 2008).**

Considering the scope of planned intervention works to be performed in the seabed and study procedures used to detect chemical weapons, which did not enable detection of lumps of chemicals without metal cases and buried in the sediment, uncertainty still remains as to the environmental impact resulting from re-deposition of such weapons, including pyrite. Furthermore, it is noted that no information is included in the documentation about whether routes along which the weapons were transported to the dumping sites (for example in the Bay of Greifswald) were included.

The documentation provides no information about the procedure for the analysis of sediment samples and their results (the Republic of Poland requested for this in its January 2009 position). No detailed and clear information has been provided either concerning the procedure for handling chemical weapons should they be extracted during construction works. It is predicted to blow the conventional munition but the description of the possible consequence of it should be

more precise with the assessment of the possible impact on the environment and the possible influence on the nearby objects such as among others unexploded bomb.

The aforementioned information about chemical weapons should be made more specific with consideration given to the analysis of the range and directions of the possible propagation of chemical weapons extracted from sediments due to the action of waves and sea currents as well as the determination of the possibility, methods and scope of process monitoring.

**7. In the analysis of the documentation with respect to the requirements specified by the Republic of Poland in the previous positions, other matters can also be indicated which have not been addressed sufficiently:**

- 7.1. The issue of land-based variants, being alternatives to the undersea gas pipeline, has not been sufficiently addressed. It should not be conducted mainly in accordance to the economy reasons and it seems not to be correct to restrict the possible variants of such a big project (which character is transboundary from the beginning) to the area of jurisdiction of the chosen country of origin.
- 7.2. Lack of detailed reference to the restrictions resulting from the construction and operation of the pipeline for fishery (indication of specific locations and restrictions on fishing equipment, among other things).
- 7.3. No sufficient reference to the analysis of emergency conditions (including the possible pipeline damage) and issues of the responsibility for any damage to the environment incurred (also after the possible liquidation of the Nord Stream consortium).
- 7.4. Lack of evaluation and protection of the planned undertaking against seismic movements.
- 7.5. The NS report should be supplemented with a detailed environmental monitoring scheme which includes all construction and operation stages along with the indication of a procedure for accessing results. Apart from the aspects referred to in the documentation, the monitoring should also include chemical weapons found during pipeline construction works and their further propagation.

It is also noted that despite the fact that issues concerning the presentation of Polish sea areas in the documentation were pointed out in the positions of the Republic of Poland dated February 16, 2007 and January 23, 2009 (final remarks), the inaccuracies indicated were not removed.

It was suggested by the Polish side to change the presentation of the disputed area between Denmark and Poland with respect to the boundaries of the exclusive economic zone so that the boundary to the south of the isle of Bornholm was indicated according to the legislation of both Denmark and Poland. The dashed line shown on the map is currently the median line only which reflects Danish legal regulations concerning the boundary of the exclusive economic zone. However, the official Polish boundary of the zone, based on Polish legislation (*Regulation of the Council of Ministers of May 26, 1978 concerning the determination of the external boundary of Polish sea fishery zone (currently: exclusive economic zone) (Journal of Laws of 1978, No. 13, Item 57)*), has not been included.

In the case of a number of charts (MI-1, PA-3, PA-5 and others) the information about German and Polish waters are not correct. According to the multilateral and bilateral agreements and to the internal Polish legislation a roadstead of the Świnoujście and Szczecin harbours with anchorages are situated at the Polish territorial waters. On maps this area is marked as a German EEZ. The lack of the correct status of the area in the documentation leads to some irregularities such as: German Natura 2000 site or military are on the place of roadstead of the Świnoujście and Szczecin harbours with anchorages.

I would also like to note that the Republic of Poland received a WWF report prepared by a coalition of WWF offices located in the countries under the influence of the undertaking. The report contains a number of guidelines concerning necessary supplementation of the environmental impact assessment documentation drawn up for the Nord Stream gas pipeline.

**Furthermore, even though the documentation has the certain deficiencies indicated, the information currently available allows for the tentative determination of measures to be implemented to avoid or minimise the transboundary impact.** Project implementation will require the following measures:

- Performing monitoring of the environmental condition related the construction, operation and closedown of the pipeline along with their scopes, methods, locations and procedures for ongoing access to data and use options.
- Ensuring a precise financial mechanism related to compensation for environmental losses, also in a case of accident – which should be associated with the monitoring scheme
- Precise description of the applying for possible compensation concerning fishery restrictions.
- Conducting training schemes for fishermen concerning the procedures of conduct to be followed in specific locations: in zones above the gas pipeline in which special restrictions are imposed.
- Burying the pipeline in shallow waters in which it intersects with fairways used in the navigation towards Polish harbours and any planned infrastructure.
- Implementing measures to mitigate impact on sea creatures, including mammals in case of detonations related to seabed levelling or intentional or accidental explosions of conventional ammunition (scaring away, air curtains).
- Specifying precisely and implementing restrictions on the dates of performing works at certain sections in order to avoid environmental impact (birds, fish: spawning migrations and spawning, bottom fauna habitats, etc.).
- Considering modification of the handling of conventional weapons (extraction and neutralisation on land firing grounds).

Due to the fact that certain issues resulting from the documentation submitted need to be specified in more detail, it is noted that some of the aforementioned measures should also be refined in the future proceedings.

In summary, it is noted that the Republic of Poland would like to state it once again that the environmental impact assessment documentation needs to be supplemented. The subject matter scope of the documentation reflects the issues provided for Appendix II to the Espoo Convention; however, a more in-depth analysis reveals that the assessment is not sufficiently thorough. A number of matters related to the possible environmental impact are postponed until further stages (after the completion of the EIA procedure), no data necessary to verify the declared lack of major impact are provided; there is a lack of sufficient precision in the description of the investor's procedures and mitigation measures applied and lack of description of a monitoring scheme, even though it should be undoubtedly included due to the scale and nature of the project.

Considering the foregoing, **the Republic of Poland requests that the documentation be supplemented and sufficient time be granted for its evaluation and submission of comments by the public opinion. Once complete information concerning the undertaking and its impact has been received, it will be possible to initiate the consultations referred to in Article 5 of the Espoo Convention.**

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