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**THE MINISTRY OF ENVIRONMENT OF THE REPUBLIC OF LITHUANIA**

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**REGARDING LITHUANIAN POSITION ON ENVIRONMENTAL IMPACT ASSESSMENT  
DOCUMENTATION FOR THE CONSTRUCTION OF THE NUCLEAR POWER PLANT IN  
THE REPUBLIC OF BELARUS**

Dear Mr. Vitalij Kulik,

We appreciate the willingness of the Republic of Belarus to co-operate in the process of implementation of nuclear energy projects in Belarus. The Republic of Belarus has provided documents of the environmental impact assessment (hereinafter referred to as "EIA") of a nuclear power plant planned to be constructed in Belarus (in September 2009, Belarus provided an EIA report and its summary (in the English and Russian languages), in February 2010 – an EIA report summary, information on the likely transboundary effect, responses to comments of the Republic of Lithuania (in the Lithuanian language)).

We would like to remind that in September 2008, the Ministry of Environment of the Republic of Lithuania (hereinafter referred to as the "Ministry of Environment") on its own initiative informed the Republic of Belarus that Lithuania intended to participate in the process of transboundary environmental impact assessment of this project and requested to present information in compliance with the provisions of the United Nations Convention on Environmental Impact Assessment in a Transboundary Context (hereinafter referred to as the Espoo Convention). The requests for the provision of information were repeated in January and April 2009.

Upon the receipt by the Ministry of Environment in September 2009, according to provisions of the Espoo Convention, of a notification of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus concerning the initiation of the EIA of this project alongside with the EIA documentation, the Ministry of Environment forwarded this information to state authorities and higher education institutions and non-governmental organisations and requested to submit comments on it. Taking into account the comments received from state authorities and higher education institutions, the Ministry of Environment submitted on 15 October 2009 to the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus 39 comments and proposals of Lithuania on the IEA documentation and informed that the final position of Lithuania would be presented only following a public hearing of the EIA report in Lithuania, which may be organised solely upon the receipt of a part of the documentation in the Lithuanian language.

The requested documentation in the Lithuanian language received in February 2010 from the Republic of Belarus has been published on the website of the Ministry of Environment and

forwarded to state and local authorities, public environmental protection organisations and higher education institutions alongside with information on a public hearing of the EIA report to be held and a request to submit comments on the EIA documentation to the Ministry of Environment by 8 March 2010.

A public hearing meeting on the EIA report was held on 2 March 2010 at the Faculty of Physics of Vilnius University. In addition to representatives of the Republic of Belarus, the meeting was attended by approximately 80 representatives of the public, non-governmental organisations, higher education institutions and state authorities. On the eve of the meeting, representatives of non-governmental organisations organised a protest during which leaflets were distributed urging to oppose the construction of the nuclear power plant in the Astravets region. At the meeting, representatives of the ordering customer of the proposed economic activity (the public establishment "Дирекция строительства АЭ") and the company "Белнипиэнергопром", which had drafted the EIA documentation, informed of the course of the project, the results of the EIA and replied to the questions of the participants of the meeting. The comments and questions of the participants of the meeting were mostly linked with the proper choice and evaluation of alternatives in respect of a site for the nuclear power plant; the safety of the nuclear power plant; management of radioactive waste; actions in the event of a major accident; the thermal and radiological impact on the Neris ecosystem; the adverse impact of the nuclear power plant on the Lithuanian population as a result of exposure to radiation. The participants of the meeting proposed to abandon the construction of the nuclear power plant in the Astravets region and select an alternative location as the proposed economic activity would be carried out at a distance which is less than 50 km from Vilnius, the largest city in Lithuania and the capital of the country, and in the event of an accident a large number of residents would be adversely affected by radiation.

We regret that Belarus' representatives were not sufficiently well prepared for the public hearing regarding the environmental impact assessment report in Lithuania. As the members of the delegation had failed to provide a quality translation to the Lithuanian language, public representatives interrupted the reports being delivered by representatives of the Belarus delegation on several occasions and stressed that inappropriate information of the public constitutes a violation of its rights. It should be noted that, in compliance with the recommendations provided by the Guidance on Public Participation under the Espoo Convention, the translation burden and related expenses must be borne by the Party of origin according to the "Polluter Pays" Principle. Having regard to this circumstance, the participants of the meeting resolved to extend the time limit for submission of comments until 31 March 2010. Moreover, the Belarus delegation made a promise to translate into Lithuanian all the reports (presentations) delivered by the delegation so that they could be published on the website of the Ministry of Environment. The minutes of the public meeting is available on the website of the Ministry of Environment (<http://www.am.lt/VI/files/0.613767001268057762.pdf>). We would like to point out that the Ministry of Environment has received only a poor translation of a part of the reports delivered, and we have not received the reports (presentations) themselves yet. For these reasons, the public hearing should be considered as not having been held, therefore we request to repeat the public hearing meeting of the EIA report in Lithuania. It should be noted that a repeat public hearing meeting is also requested by the non-governmental organisations, which had provided comments and the public.

The Ministry of Environment has received 18 written comments from the public, non-governmental organisations, scientists and institutions. The Institute of Physics of the Republic of Lithuania has formed a work group and carried out an expert evaluation of the EIA of the Belarus nuclear power plant. The results of the expert evaluation and other comments are provided on the website of the Ministry of Environment (<http://www.am.lt/VI/index.php#a/9819>). Public activists have organised the signing of an electronic petition (<http://www.e-peticija.lt/peticija/42/ne-baltarusijos-ae-statybai-vilniaus-pasoneje>) against the construction of the nuclear power plant in the vicinity of Vilnius. The petition has so far been signed by over 23 000 people. Upon taking into consideration the received comments and the responses provided by the Ministry of Natural

Resources and Environmental Protection of the Republic of Belarus to Lithuania's remarks and having regard to the opinion of the country's public, the institutions and organisations concerned, the Ministry of Environment is hereby presenting the position of the Republic of Lithuania on the environmental impact assessment of the project of construction of a nuclear power plant in Belarus:

According to provisions of the Espoo Convention, an environmental impact assessment must include consideration of alternatives (no-action, locational and technological). During the EIA all alternatives must be assessed equally thorough. Prioritisation of one or another site should be substantiated in an environmental impact assessment report, which is possible solely conducting a thorough analysis of the considered alternatives. It must be pointed out that the EIA report contains only an analysis of the Astravets site. At other two sites mentioned in the EIA report (Kukshinovo and Krasnaya Polyana), the construction of the nuclear power plant is evidently impossible due to the karst processes taking place in their territory. According to the legal acts of the Republic of Belarus in force, the building of nuclear power plants at such localities (*a response to the remarks presented in the letter of the Ministry of Environment of the Republic of Lithuania of 15 October 2009*) is forbidden. This implies that only one locational alternative is examined, rather than the three alternatives, as claimed in the EIA report. The analysis and comparison of technological alternatives are not given adequate attention either.

It is absolutely unclear which selection criteria have served as a basis for selection of these three alternative locations and whether the surveys for selection of suitable sites for the building of the nuclear power plant were done according to the IAEA safety requirements "Site Evaluation for Nuclear Installations", NS-R-3, and other international recommendations.

Any specific site might be given priority solely upon considering all available alternatives. In this case, information must be provided on the potential impact on the elements of the environment by each of the site under consideration and the possible extent of the impact must be compared. The degree of risk of all the sites and its acceptability must be evaluated. According to the fourth safety principle of the IAEA (*Fundamental Safety Principles, SF-1, IAEA, 2006*), the radiation risks to which the nuclear installations and related activities give rise must be outweighed by the benefits that they yield in the course of their operation. The calculations done by the scientists of the Institute of Physics of the Republic of Lithuania (*Expert Evaluation of the Nuclear Power Plant in Belarus (2010), Annex 5*) show that in the event of a severe accident and under unfavourable conditions, the health of the residents of Vilnius and surrounding areas is exposed to a real and unacceptable threat. Construction of a nuclear power plant at such a close distance from Vilnius, the largest city of the Republic of Lithuania and its capital, would pose an unjustifiable high risk posed by this facility to Lithuania.

The final choice of the site should be made solely upon performing an in-depth assessment of the site from the safety perspective. Such an assessment covering geological, geophysical, emergency preparedness and other issues must be performed in line with the current good international practice.

**Summary of comments on the issues of importance for the environmental impact assessment report in relation to the planned construction of a nuclear power plant in Belarus:**

**Geology.** The report lacks geological, seismological, and seismo-tectonic data. A reference is provided to the document "Report on a Feasibility Study of the Construction of a Nuclear Power Plant in the Republic of Belarus (1588-PZ-PIZ. Principal Explanatory Note, Part I)", but this document has not been made available for familiarisation and evaluation. The statements presented in Tables 1 and 3 of the report concerning the tectonic structure and stability of potential sites, the seismic and tectonic activity, the amplitudes of horizontal and vertical movements of Earth's surface and the magnitudes of the projected and maximum earthquakes, the distances of the sites from seismic hazard zones and the seismic qualities of soil are not based on factual data

and/or documents. Having regard to the latest data of the seismo-tectonic research conducted by specialists of the Republic of Belarus and available to the Lithuanian Geological Survey (*Red. Sharov N.V., Malovichko A.A., Shchukin Y.K. 2007. Earthquakes and Microseismicity in the Context of the Current Geodynamic Developments of the Eastern European Plate, Petrozavodsk, the Karelian Research Centre of RAS, p. 381; Kaliningrad Earthquake, 2008, p. 151* (in Russian)), The Astravets site is located close to or even above the second-order (regional and/or local) active crack. Having regard to this fact, in the course of assessment of the environmental impact of a nuclear facility, such as a nuclear power plant and potential risks, exhaustive data must be available substantiating the potential impact of seismic activity and the resulting phenomena. Attention should be drawn to the fact that according to international practice, construction of a nuclear power plant over or in the vicinity of an active tectonic crack is prohibited (IAEA document "Site Evaluation for Nuclear Installations", NS-R-3, paragraph 3.7).

**Reactor type.** The EIA report does not provide an adequate justification of the choice of the reactor type. It indicates that the advantage of the selected reactor lies in the fact that the primary equipment and security systems having undergone tests in two reactors in China and that it is possible to return spent nuclear fuel for long-term storage or treatment to the Russian Federation. It is unclear whether other, and which, arguments have been considered when selecting the reactor type.

The presented information indicates that according to the project, the structures of the nuclear power plant would sustain a crash of only a light aircraft. This means that Belarus' nuclear power plant will not be protected against a crash of a large civil aviation aircraft. Taking into consideration the likelihood of terror acts, an increasing number of countries around the world (the USA, Finland, etc.), adopt the requirements for the projects of newly designed and constructed nuclear power plants to ensure adequate protection in the event of a crash of a large civil aviation aircraft. Lithuania also intends to observe such requirements. Belarus' decision on the construction of a reactor whose project does not ensure compliance with the mentioned requirements is not acceptable for Lithuania.

**Regulatory body and its legal status.** According to the second fundamental safety principle set by the International Atomic Energy Agency (*Fundamental Safety Principles, SF-1, IAEA, 2006*), an effective legal regulation and state management system must be created and maintained to ensure safety. Implementation of a project of such a scope as the construction of a nuclear power plant requires the creation and proper maintenance of a national regulatory body having a sufficient number of qualified personnel and considerable legal powers in the field of nuclear safety regulation. Such a body must be set up well in advance before commencing the implementation of the project, and the number of the personnel, their qualifications and the allocated material resources must be such that the body would be able to properly perform the nuclear power plant's safety assessment works, that is, to review the site assessment documentation, safety analysis reports, and to ensure the appropriate implementation of the project and a safe operation of the nuclear power plant. Moreover, it must be noted that the regulatory body should not depend exclusively on the conclusions of hired experts (external experts), but should also possess adequate own resources in order to be capable of not only appropriately formulating tasks for external experts and accepting works from them, but also perform, in a qualified manner, a review of the safety justification documents independent of the operating organisation and the nuclear power plant supplier and exercise state supervision of nuclear safety.

**Implementation of the project.** The procedure for licensing the nuclear power plant is unclear. A preliminary overview of the planning, designing and subsequent project implementation stages must be presented indicating the time limits for implementation and the specific stages of the project to be implemented, including safety assessment of the site, submission, consideration and evaluation of a preliminary safety analysis report.

**Operation of the nuclear power plant.** The data provided in the EIA report may be of relevance solely if the organisation operating the nuclear power plant acts in compliance with all technological and environmental protection requirements, if the nuclear power plant is managed by the qualified personnel and if environmental monitoring is performed, instant response is given to deviations from normal operations, the public is adequately informed, etc. As the EIA report relies extensively on

the legal acts of the Russian Federation and the opinion of Russia's authorities, there are doubts over the ability of the Republic of Belarus to ensure, by means of legal and practical instruments, the appropriate operation of this facility and to exercise its supervision at the state level, because in this case, Russia is the supplier of the nuclear power plant's technology and might be interested in selling the technology. In our opinion, the Republic of Belarus must take measures to perform an independent evaluation of the project of construction of the nuclear power plant.

**Management of spent nuclear fuel and radioactive waste.** The issues of radioactive waste management, which are of importance for the environmental impact assessment from the radiation protection perspective and which are closely related to the operation and decommissioning of the nuclear power plant planned to be constructed, are not given close attention. The EIA report must provide information on the decommissioning of the nuclear power plant and the final management (disposal) of accumulated radioactive waste clarifying the raising of funds for the decommissioning of the nuclear power plant and disposal of radioactive waste. An assessment of the economic impact of the nuclear power plant must also take into consideration the costs of the decommissioning of the nuclear power plant, management, storage and disposal of spent nuclear fuel and radioactive waste. A lack of the information permits a presumption that the Republic of Belarus does not have in place a clear strategy for radioactive waste management nor the legal acts regulating radioactive waste management. If repositories for radioactive waste are built near the nuclear power plant, their cumulative effect should be evaluated.

The manner of treatment of spent nuclear fuel remains unidentified. It must be indicated whether spent nuclear fuel will be considered as waste or valuable material, which will determine its management possibilities. It must be demonstrated that the Russian Federation is ready to receive spent nuclear fuel taking into account the technical capacities of this country and the legislation currently in force in the country. It should be pointed out that the laws of the Russian Federation prohibit disposal of waste of other countries, therefore the highly radioactive long-lived waste accumulated after treatment of spent nuclear fuel will be returned for disposal to the country of origin. The EIA report should discuss the plans of disposal of such waste.

**Impact on the ecosystem and hydrological regime of the river Neris.** The impact of thermal pollution on the flora and fauna (in particular salmon), benthos and other hydrobionts of the river Neris must be assessed. There is no information on the envisaged measures mitigating an adverse effect on the sensitive ecosystem of the river caused by heat pollution, hydrological regime, and polluted waste. Based on the information supplied in respect of the quantities of water required for the cooling process, it is not possible to evaluate the reliability of the data and the validity of the conclusions claiming that no adverse impact will be exerted on the river Neris and the qualitative and quantitative indicators of the water will not deteriorate.

The EIA report does not describe in detail the manner in which water will be taken from Neris river. It needs to indicate whether dam-construction measures will be employed, whether a water reservoir will be constructed. It should be noted that fish protection measures must be envisaged at the sites of collection and discharge of the water intended for cooling.

The report does not provide a detailed description of the impact of the used water returned to Neris on the river's chemical regime. As there are water intake sites (water extracting sites) located on the banks of the river Neris, and their resources are partly formed by the river water, the possible chemical changes of the river water will affect the quality of drinking water.

The report lacks information on the activity of the radionuclides to be discharged or released into water from the nuclear power plant. The values of potential radioactive pollution of the Neris water are presented indicating that the overall radionuclide (isotope Sr-90, Cs-137 and I-131) pollution of the water of Neris would amount to as much as  $10 \text{ kBq/m}^3$ , however the report does not provide an assessment of the impact of tritium (H-3) and some other radionuclides (e.g., C-14) to be emitted in the course of the proposed economic activity on Neris river in the territory of Lithuania based on the calculations done according to radionuclide transport models. A rough assessment by presenting a reference to radionuclide pollution of the lake Drūkšiai as caused by the operation of the Ignalina NPP is not an exhaustive and substantiated response.

**Assessment of the radiological impact on the population under normal operational conditions.** The report does not provide an assessment of the potential exposure of residents to radiation. On the basis of monitoring data, it contains only the information on radionuclide

emissions from the reactors located in the Russian Federation and their activity. The report lacks an assessment of exposure of the population to radiation under normal operational conditions which would be based on specific calculations and which would take into account specific conditions of the nuclear power plant site and its surroundings as well as the design of the nuclear power plant and properly identified risk groups of the population. Account also needs to be taken of the fact that the reactor to be built has certain modification differences as compared with the similar reactors already in operation in the Russian Federation.

The response to the 15 October 2009 letter of the Ministry of Environment contains a reference to a document entitled "*Report on a Feasibility Study of the Construction of a Nuclear Power Plant in the Republic of Belarus. Study of Hydrological, Radiological, Ecological, and Land-Use Conditions in Relation to the Construction of the Nuclear Power Plant at Astravets and Verkhnedvinsk*". As this document cannot be accessed, its summary and results of calculations must be included in the EIA report.

**Impact in the event of an accident.** The Convention on Nuclear Safety and Safety Standard Series No GS-R-2 point out that when considering nuclear plant accidents, including low-probability accidents, causing discharges of radionuclides to the environment in the form of airborne or liquid effluents, all possible effects must necessarily be taken into consideration. The activity of radionuclide emissions to the environment in the event of a design and severe accident as presented in the EIA report makes up only a tiny part of the entire radionuclide activity accumulated in a reactor (hundredth parts of a per cent) and the report provides no substantiation of the selection of such a part of the activity. It is not clear why only the impact of Cs-137 and I-131 is assessed in the EIA report.

The zones in which emergency preparedness measures are to be applied must be determined individually for each site, because it depends not only on the specific features of the design of a nuclear power plant, but also on the site of the nuclear power plant and the peculiarities of its surroundings. It is incorrect to claim, in the absence of a specific technical project of the nuclear power plant, that application of emergency preparedness measures will not be necessary at a distance exceeding 800 metres from the nuclear power plant.

A description of potential accidents makes use of excessively optimistic evaluations of the radioactivity of the environment and plants. The statement that purification of a plant takes 20 days is inaccurate, because no account is taken of the average potential pollution of the plants.

Subparagraph 5.1.3 of the EIA report claims that, in the event of a severe accident, the territory of the Republic of Lithuania will not be polluted by long-lived radionuclides, although subparagraph 5.1.2 presents model calculation data showing that, given a favourable wind, pollution of a certain area solely by Cs-137 could amount to as much as 19 kBq/m<sup>2</sup> (radiation background – 1.7 kBq/m<sup>2</sup>).

In our opinion, the assessment of consequences of severe accident was not based on the analysis of the worst meteorological and other modelling conditions, which could cause the transport of the released radionuclides to the territory of Lithuania as well as the dose exposure on the population. The consequences of the maximum design accident and severe accident must be assessed during different meteorological conditions and different seasons of the year.

In the event of a severe accident, it might be necessary to take protection measures in a densely populated territory of Lithuania, including the city of Vilnius, whose population currently exceeds 500 000 residents. The organisation and maintenance of emergency preparedness measures in such a territory will lead Lithuania to considerable expenses, and the implementation of the measures may be complicated having regard to the number of the residents and their distribution. Attention must also be drawn to the fact that the accident losses, whose scope in such a territory would be incomparably more extensive than a less heavily populated and industrialised territory, will have to be borne by Belarus.

**Public opinion.** The results of opinion polls and active participation of public organisations and virtual communities allow to claim that the Lithuanian public opposes the construction of the nuclear power plant in the vicinity of Vilnius, the largest Lithuanian city. A part of the public has proposed to develop alternative energy. On 26 April 2010, the anniversary of the Chernobyl disaster, non-governmental environmental protection organisations picketed at the embassies of

the Republic of Belarus and the Russian Federation and the Government of the Republic of Lithuania seeking to draw attention to the problems relating to nuclear energy.

**CONCLUSIONS:**

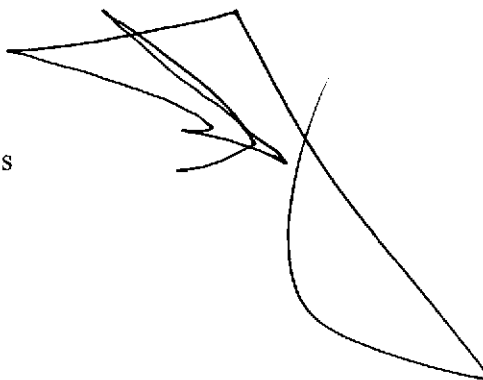
- 1) The environmental impact assessment of the nuclear power plant planned to be constructed is not sufficiently thorough, because the EIA report focuses exclusively on the Astravets site, which is not in conformity with the provisions of the Espoo Convention requiring a comparison of no-action, locational and technological alternatives. When conducting environmental impact assessment, all the alternatives must be assessed sufficiently comprehensive to enable the taking of a most favourable decision from the environmental and socio-economic perspectives.
- 2) Having analysed the provided environmental impact assessment documentation, we object the construction of the nuclear power plant in the Astravets district on the grounds listed in the comments.
- 3) We request to organise a repeated public hearing meeting regarding the environmental impact assessment report in Lithuania and declare our intention to participate in bilateral oral consultations regarding the position and comments.

**ANNEXES:**

1. Expert evaluation of the environmental impact assessment of the nuclear power plant planned to be constructed in Belarus (2010) performed by the Institute of Physics of the Republic of Lithuania.
2. Public comments.
3. Summary of comments to the replies provided by the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus in response to the remarks presented in the letter of the Ministry of Environment of 15 October 2009.

Yours sincerely,

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Vice-Minister



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## EXAMINATION of the environmental impact assessment of Belarus nuclear power plant

Preparations for the construction of a nuclear power plant are currently underway in the Republic of Belarus. Acting in accordance with the provisions of the UN Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus has presented the Ministry of Environment of the Republic of Lithuania with an environmental impact assessment report on the 2400 MW nuclear power plant planned to be built in Belarus.

A working group set up at the Institute of Physics has carried out an examination of the environmental impact assessment (EIA) of the Belarus nuclear power plant. The purpose of the examination is to carry out an EIA analysis based on the International Atomic Energy Agency (IAEA) and international requirements, recommendations and global practices: to present a reasoned opinion on information provided in the abovementioned document, ascertain whether it meets requirements currently in force, and present comments and conclusions of importance to the consideration of environmental impact and safety issues of the nuclear power plant planned to be built in Belarus.

The examination of the environmental impact assessment of the nuclear power plant planned to be built in Belarus has revealed several key weaknesses of this project:

1. The EIA assertion that the Astravets site is a priority site disregards and **severely violates the fourth safety principle of the IAEA** (Fundamental Safety Principles, SF-1, IAEA, 2006) based on which the benefits that nuclear facilities and related activities yield must outweigh the radiation risks to which they give rise. Based on calculations made by scientists of the Institute of Physics (Annex 5), given unfavourable conditions in the case of severe accidents, there would be a real and unacceptable threat to the health of Vilnius city residents. A nuclear power plant close to Lithuania's largest and capital city Vilnius would **pose an unjustifiably high risk to Lithuania's residents, particularly keeping in mind that the benefits of this facility to Lithuania are not clear.**
2. The document does not define the power plant site selection procedure and does not name selection criteria. The assertion that all of the three alternative sites meet the criteria established for them and conditions regarding site characteristics is incorrect as **the fourth safety principle of the IAEA is severely violated in the case of the Astravets site.** Areas characterised by an increased seismic risk (the Astravets site) and





areas where karst phenomena are observed (Krasnopolianskaya and Kukshinovskaya) should be rejected at the initial stage (the area review phase).

3. The EIA report provides an incomplete assessment of the impact of thermal, chemical and radiation pollution of the River Neris. Limit values of such pollution have not been presented, the impact on the ecosystem of the River Neris and a critical Lithuanian population group in normal operation and emergencies has not been evaluated.
4. The selected nuclear power plant project AES-2006 has not been materialised so far, there are insufficient data on the safety parameters of the new reactor. Therefore, we assess the consequences of possible accidents in a conservative manner.
5. Design-basis accidents evaluated in the EIA correspond to level 4 and beyond design-basis accidents to level 5 on the International Nuclear and Radiological Event Scale (INES). According to the Convention on Nuclear Safety and Safety Standard No GS-R-2, when evaluating nuclear power plant accidents, including very unlikely accidents when radionuclides are released into the environment due to airborne or liquid discharges, it is necessary to evaluate all possible consequences. Based on recommendations provided in the abovementioned documents, when evaluating likely radionuclide transfers to the territory of the Republic of Lithuania and the impact on the population of the Republic of Lithuania, level 6, and possibly level 7, accident consequences on the INES scale must be evaluated. Radionuclide discharge rates in the event of a design-basis accident and the most severe beyond-design-basis accident indicated in the EIA report account for a very small portion of total radionuclide activities in the reactor (hundredths of percent). There is no justification for the choice of such activity. Based on conservative evaluations and recommendations (e.g. US NRC document NRC-RG-1.4), the authors of the EIA chose 1000-fold lower radioactive discharge values in the case of the most severe beyond-design-basis accident. The assertion that the most severe beyond-design-basis accident would not pose a threat to Vilnius residents' health is incorrect. According to the calculations by scientists of the Institute of Physics, given unfavourable conditions in the event of a level 7 accident, in 7 days the effective dose incurred by residents would exceed 50 mSv and Vilnius city residents would have to be evacuated.

Problems arising in relation to the construction of the nuclear power plant at the Astravets site can be solved by choosing an appropriate version of a Lithuanian-Belarusian agreement:

1. The planned location of the Belarus nuclear power plant should be changed. The distance between the site and Vilnius should be increased, so that evacuation of residents due to radiation in the event of severe accidents under unfavourable conditions is not required. Based on preliminary estimates, the distance to Vilnius should be at least 70 km.



2. If the power plant construction site is not changed, it must be discussed what benefits Belarus would provide for Lithuania to outweigh the risks posed by its power plant. Such a decision would facilitate improvement of compatibility with the risk-benefit balance principle but **would not solve the issue of unacceptable radiation effects on Vilnius city residents in the case of severe accidents.**

In the opinion of the authors of the examination, the construction of the Belarus nuclear power plant at the Astravets site is unacceptable due to the presented comments.

**Group leader**

**Members**

Dr Laurynas Juodis

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**Annex 1. Additional comments related to general comment 1 (General safety principles).**

<b>Comment No</b>	<b>Paragraph No</b>	<b>Page No</b>	<b>Comment</b>
1.	1.2, 1,3	8-11	<p>Based on IAEA recommendations (The Safety of Nuclear Installations, Safety Fundamentals, IAEA, 1993), a country operating nuclear installations must ensure full safety of such installations by creating a legislative framework and a structure of regulatory bodies. A regulatory body is mentioned in paragraph 1.2, but a specific purpose of this organisation and supervisory functions to be ensured by it remain unclear.</p> <p>It is also not clear which of the organisations that have prepared the EIA is competent at nuclear reactor safety assessment. It is an obligation of a country operating nuclear installations to ensure the existence of such organisations and their competent staff as well as regulatory bodies.</p>
2.	2.2	15-21	<p>An analysis of presented information on alternative sites has shown that the IAEA Fundamental Safety Principles were not adhered to when selecting the location of the sites (Fundamental Safety Principles, SF-1, IAEA, 2006). Based on principle 4 (Justification of facilities and activities), for facilities and activities to be considered justified, the benefits that they yield must outweigh the radiation risks to which they give rise. By giving priority to the Astravets site, the authors of the EIA <b>disregard and severely violate this principle</b>. A nuclear power plant close to Lithuania's largest and capital city Vilnius would pose an unjustifiably high risk to Lithuania's residents, particularly keeping in mind that Lithuania will not benefit from this facility.</p>

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2. Fundamental Safety Principles, SF-1, International Atomic Energy Agency, Vienna, 2006.
3. The Safety of Nuclear Installations, Safety Fundamentals, IAEA, 1993.

**Annex 2. Additional comments related to general comment 2 (Site selection).**

Comment No	Paragraph No	Page No	Comment
1.	2.1	11	It tells about the capacity of the future nuclear power plant, which is planned to be 2300–2400 MWe. Information on the process of selection of the site for such a facility and the compatibility of the indicated capacity with site-specific conditions must be presented.
2.	2.2	11	Paragraph 2.2 refers to site selection for the power plant and mentions site selection criteria, but they are not indicated. Characteristics of alternative sites are provided in tables 1 and 2, but there is no solid evidence of compliance of these characteristics with the site selection criteria and completeness of the list of characteristics. What is the basis for the selection of certain limit values (e.g., maximum population density, etc.)? All site selection criteria in line with international practices and recommendations must be clearly indicated. A reference to the power plant site selection study and a short summary reflecting the main results and assumptions of this study should be presented as well. The characteristics of specific sites must be related to the general selection criteria and the completeness of such an analysis must be ensured.
3.	2.2	11	<p>Reportedly, 74 sites for the construction of the nuclear power plant were planned at the initial stage. Twenty sites were later removed from the list as they were affected by “factors prohibiting construction of a nuclear power plant”. We would like to know what those 20 sites were and what “prohibiting factors” determined the removal of those 20 sites.</p> <p>Three sites were selected out of remaining 54 sites without presenting any selection criteria. We would like to see comprehensive data and specific reasons for the rejection of each of the 51 sites as unsuitable for the construction of the nuclear power plant.</p>
4.	2.2	11	Additional exploratory works, among other works, were reportedly carried out outdoors by order of an expert committee. What specific additional exploratory works were carried out outdoors? What are the results?

Comment No	Paragraph No	Page No	Comment
5.	2.2	15	Table 2. Both of the last two of 54 alternative sites have major shortcoming, namely a high ground water level and karst phenomena. For these reasons, they had to be rejected at earlier stages of consideration, i.e. had to be classified as unsuitable like earlier rejected 51 sites. Site selection criteria have not been formulated and submitted. Therefore, the site selection process is "non-transparent".
6.	2.2	17	Table 3 analyses compliance of alternative sites with regulatory document requirements. The indicated document code is <i>TKII 097-2007</i> . However, there is no reference to it provided in the list of references. It is not clear whether the requirements of this document are in agreement with international recommendations.
7.	2.2	24	<p>The assertion that all of the three sites meet the criteria established for them and conditions regarding site characteristics is incorrect as IAEA safety principle 4 (Justification of facilities and activities, Fundamental Safety Principles, SF-1, IAEA, 2006) is severely violated in the case of the Astravets site. The assertion that priority has been given to the Astravets site based on IAEA recommendations is incorrect as well, as the recommendations have actually been disregarded and violated (see Comments of Annex 1).</p> <p>The site selection procedure is not defined. The unacceptable selection of an increased seismic activity site as a priority site has not been substantiated.</p> <p>The selection of a site for a nuclear facility usually covers the operational concept and planning phase, the area review phase and the site characterisation and approval phase. The IAEA recommends (Site Survey for Nuclear Power Plants, IAEA Safety Series No 50-SG-S9, 1984) to start with the selection of large areas with favourable geological characteristics suitable for construction at the area review phase for further consideration. Areas characterised by an increased seismic risk and areas where karst phenomena are observed should be rejected at the area review phase. An increased-risk site in terms of seismic activity only and sites unsuitable for construction due to karst phenomena should not be considered at the site characterisation and approval phase.</p>

## References

1. Отценка воздействия на окружающую среду, Заявление о возможном воздействии на окружающую среду Белорусской АЭС, Предварительный отчет об ОВОС Белорусской АЭС, Министерство энергетики Республики Беларусь, 2009.
2. Convention on environmental impact assessment in a transboundary context, Espoo, (Finland), on 25 February 1991.
3. Fundamental Safety Principles, SF-1, International Atomic Energy Agency, Vienna, 2006.
4. Site Survey for Nuclear Power Plants, IAEA Safety Series No 50-SG-S9, 1984.

**Annex 3. Additional comments related to general comment 3 (Impact related to River Neris pollution).**

<b>Comment No</b>	<b>Paragraph No</b>	<b>Page No</b>	<b>Comment</b>
1.	1.1	8	Paragraph 1.1, Fig. 1. There is no evidence that the presented scheme for ecological safety of the power plant is complete. For example, this scheme does not demonstrate the impact of the power plant on water bodies (a drop in the water level, thermal pollution, etc.) whose water is used for technological purposes. The main safety principles and criteria (international IAEA recommendations) adhered to when formulating the power plant safety concept are not indicated either.
2.	1.1	8	Referring to Fig. 1, it is stated that some key issues must be solved at the EIA stage, with one of them – “creation of proposals for the organisation of a system of ecological monitoring of the environment” – indicated as a future objective. Irrespective of the country in which it is used, the system of ecological (radio-ecological) monitoring of the environment is characterised by very specific activities. Therefore, nothing needs to be created here. There must be a list defining those activities and it must be presented.
3.	2.6	40	According to the assessment of violation of normal operation conditions and release of radionuclides into the environment with airborne and liquid discharges (“годовой жидкий сброс”), the release of radionuclides into the environment will meet the requirements of document СП AC-03 (Sanitary Rules for Design and Operation of Nuclear Power Plants), except for tritium, with no additional explanations provided. This means that, based on the EIA, annual releases of tritium via liquid discharges WILL NOT MEET the requirements of document СП AC-03 (Sanitary Rules for Design and Operation of Nuclear Power Plants).
4.	3.1.1	51	No information is provided on estimated thermal pollution of a discharge water body, changes in the ecosystem of the water body, and requirements established for such pollution.
5.	3.1.2	52 - 54	Table 14. The presented qualitative assessment is non-informative. A numerical evaluation of pollution must be presented and compared with the respective requirements.

Comment No	Paragraph No	Page No	Comment
6.	3.1.2	54 - 55	Only qualitative information on chemical pollution of the atmosphere has been provided. A numerical evaluation of pollution must be presented and compared with the respective requirements.
7.	3.1.3.1	56	The indicated chemical composition of effluents is not compared with the established requirements. Information on the requirements, pollution limit values and a comparison of estimated values must be presented.
8.	3 - 4		As far as the evaluation of background levels of technogenic radionuclides $^{137}\text{Cs}$ and $^{90}\text{Sr}$ in the River Neris is concerned, only data on the activity of these radionuclides in river water have been presented. Water is the least informative medium for the assessment of pollution of water bodies, particularly rivers, with radionuclides. Water as well as land pollution with radionuclides is best shown by plants called bioindicators. However, no data have been provided on the background levels of technogenic radionuclides $^{137}\text{Cs}$ and $^{90}\text{Sr}$ in aquatic and terrestrial plants.
9.	4		Radioactive, chemical and thermal pollutants will be released into the River Neris via nuclear power plant effluents. Therefore, it is not enough to assess the quality of water in the River Neris in terms of hydrobiological indicators only. The background level of ecotoxicological state of this river should be assessed as well.
10.	4.7.2, 5.2.2	91, 106	According to the provided information, River Neris water consumption for the needs of the power plant will make up 4–8.7 % of river discharge and the water level will drop by 7–11 cm. No comparison of such estimates with the relevant requirements has been presented. There is no analysis of the overall impact on the river ecosystem. The impact of chemical pollution is not clear either, these values have not been compared with limit values established in the respective requirements.
11.	5.2.4	106 - 108	No information on water pollution with radionuclides has been presented: <ol style="list-style-type: none"> <li>1. The issue of validation of the programme used.</li> <li>2. Selected modelling assumptions.</li> <li>3. Dose assessment for a critical population group.</li> </ol>

## References



1. Оценка воздействия на окружающую среду, Заявление о возможном воздействии на окружающую среду Белорусской АЭС, Предварительный отчет об ОВОС Белорусской АЭС, Министерство энергетики Республики Беларусь, 2009.
2. Convention on environmental impact assessment in a transboundary context, Espoo, (Finland), on 25 February 1991.

**Annex 4. Additional comments related to general comment 4 (Selection of power plant technologies).**

Comment No	Paragraph No	Page No	Comment
1.	2.3.4	29	All of the reactors discussed in the report reportedly meet effective IAEA, EUR and national requirements. It is necessary to clearly name the documents, provide references to them as well as a reference to such an analysis and a summary of its results.
2.	2.7	41	Equipment and materials for the VVER-1200 reactor are reportedly selected based on the requirements of regulatory documents. These documents are not indicated and are not on the list of references.
3.	2.8	42	The power plant project reportedly meets the main criteria and principles declared in modern regulatory document requirements and international recommendations. These documents are not indicated either in the text or in the list of references. Only one of 10 IAEA safety principles (Fundamental Safety Principles, SF-1, IAEA, 2006) is mentioned. Therefore, there is no reason to assert compliance with these principles.
4.	3.1.5	63 - 65	Activity values of airborne and liquid discharges allowed for Russia-based power plants with reactors of different modifications and activity values of airborne and liquid discharges during operation of those power plants are indicated in the paragraph. Such information is not a reason to assert that operation of the planned power plant with VVER reactors of another modification will meet requirements. It is also not clear what requirements would be applied to the planned power plant.
5.	5.1.3	103	The assertion that actual accidental emissions will be considerably lower due to technical measures introduced is groundless and speculative because: <ol style="list-style-type: none"> <li>1. The technical measures are not named.</li> <li>2. Accidents must be considered in a conservative manner, i.e. one should not presume that all accident localisation systems will operate perfectly (NRC-GR-1.4).</li> </ol>

**References**

1. Оценка воздействия на окружающую среду, Заявление о возможном воздействии на окружающую среду Белорусской АЭС, Предварительный отчет об ОВОС Белорусской АЭС, Министерство энергетики Республики Беларусь, 2009.

2. Convention on environmental impact assessment in a transboundary context, Espoo, (Finland), on 25 February 1991.
3. Fundamental Safety Principles, SF-1, International Atomic Energy Agency, Vienna, 2006.
4. The Safety of Nuclear Installations, Safety Fundamentals, IAEA, 1993.
5. INES the International Nuclear and Radiological Event Scale User's Manual, International Atomic Energy Agency, Vienna, 2009.
6. Regulatory Guide 1.4, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss-of-Coolant Accident for Pressurized Water Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.

## Annex 5.

### Analysis of radiation effects on the population of potential accidents at the NPP planned to be built in Belarus

The quantities of radionuclides emitted to the environment during operation of nuclear reactors under normal operating conditions do not pose any major threat to people and living nature. However, there is also a possibility of accidents of different severity producing very large quantities of uncontrolled radionuclide emissions to the environment. Radionuclides would migrate in a large area and pollute the living environment and food of people. The incidental pollution of radioactive materials emitted from the reactor would migrate downwind of the source for many kilometres and may pollute densely populated areas. In this case, a large number of people would be exposed to increased doses of ionising radiation which increase the risk of cancer or even may result in such deterministic human conditions as radiation sickness. As a rule, pollution is the highest around the emission site and decreases with distance from the source. Therefore, for the purposes of safety, nuclear power plants are usually built as far as possible from major cities or densely populated areas.

The design-basis accident assessed in chapter 3 of the environmental impact assessment (EIA) of the Belarusian NPP corresponds to a level 4 accident on the INES International Nuclear and Radiological Event Scale (10–100 TBq of I-131 equivalent are released to the environment during an accident) and beyond design-basis accident of level 5 (100–1,000 TBq of I-131 equivalent are released to the environment during an accident). The latter case is compared to the effects of the level 5 accident at the Three Mile Island NPP (USA). Thus, the IAE report made available by Belarus foresees a potential accident under worst-case scenario where the following most significant radionuclides are released into the environment in a short period of time:  $^{131}\text{I}$  – 4.1E+14 Bq;  $^{137}\text{Cs}$  – 1.7E+13 Bq and  $^{90}\text{Sr}$  – 1.5E+12 Bq. The underlying assumption is that only about 0.013% of the amount of  $^{131}\text{I}$  radionuclide activity present in the operating reactor of this type (VVER 1200) is released into the environment. The activity of radionuclides present in the reactor was assessed using modelling calculations carried out at the Institute of Physics using Origen ARP (SCALE 6 package) software and are presented in Table 1 below.

Table 1. Activity of main radionuclides accumulated in an operating reactor.

Radionuclide	Activity in reactor, Bq
Sr-90	2.14E+17
Ru-105	3.02E+18
Rh-105	3.42E+18
Te-132	4.46E+18
I-131	3.19E+18
I-132	4.60E+18
I-133	6.23E+18
I-135	5.18E+18
Xe-133	6.45E+18
Cs-134	4.13E+17
Cs-137	2.96E+17
Ce-144	3.63E+18

However, the analysis of accidents in the EIA report produced by Belarus does not comply with the requirements of the Convention on Nuclear Safety. The preamble to the Convention on Nuclear Safety (paragraph viii) states that this Convention sets out the fundamental safety principles for nuclear installations which are detailed in the accompanying safety guidelines. Safety Standard No GS-R-2 (Chapter 3: General Requirements, Table 1) outlines the requirements for the preparedness and responsibilities in cases of nuclear and radiological accidents. It should be noted that potential effects must be evaluated in relation to accidents occurring in facilities such as nuclear power plants **including very low probability events that could give rise to deterministic effects** where radionuclides are released into the environment as a result of emission to the atmosphere or water bodies.

According to the requirements laid down in the Convention on Nuclear Safety and Safety Standard No GS-R-2, the assessment of the potential migration of radionuclides to the territory of the Republic of Lithuania and potential effects on the Lithuanian population must include an assessment of the effects of level 6 event (1,000–10,000 TBq of I-131 equivalent are released to the environment during an accident) and, possibly, level 7 event (10,000–100,000 TBq of I-131 equivalent are released to the environment during an accident) according to the INES scale.

The levels of incidental pollution and population exposure doses are forecasted using the models and software for radionuclide migration after accidental release. PC COSYMA [6] is one of such applications officially recognised by the European Union as the standard application. The Belarusian authors of the EIA report used RECASS NT (Roshydromet, Information Analysis Centre (SE SPA Typhoon)), an application similar to PC COSYMA, to assess the radiation effects on the population.

Using the PC COSYMA application, the Institute of Physics carried out an alternative assessment of radiation effects on the residents of Vilnius in the aftermath of a serious nuclear accident at the Astrava site for the Belarusian nuclear power plant (BNPP). Table 2 below shows the calculated population exposure to the effective dose and thyroid equivalent dose in cases of various potential accidents at the BNPP.

The assessment of potential incidental doses shows that the residents of Vilnius will have to be subjected to various protective measures as defined in Lithuanian Hygiene Standard HN:99:2000 in cases of serious level 7 accidents. Even a medium level 7 accident coupled with adverse meteorological conditions would require permanent relocation of residents of Vilnius.

We also believe that the residents of Vilnius will have to be evacuated urgently as the weekly effective dose for the population would exceed the threshold of 50 mSv if the full list of radionuclides (assessed by the Institute) is taken into account. Meanwhile, this threat would be eliminated if the power plant was built at a minimum distance of about 100 km.

Table 2. Alternative assessment of potential radiation effects on the population in cases of potential hypothetical accidents of various levels at the Belarusian NPP carried out by the Institute of Physics using the PC COSYMA application.

Event level	I-131 release to the environment, t, Bq	Distance to the power plant	Effective dose, Sv				Thyroid equivalent dose, Sv	Use of protective measures				
			Over human life (50 years)	Annual	Monthly	Weekly		Evacuation (50 mSv/week)	Temporary relocation (30 mSv/month)	Permanent relocation (1 Sv/lifetime)	Iodine blockade (100 mGy)	
<b>Radionuclide composition in the reactor according to the Belarusian EIA</b>												
Worse-case scenario at the NPP in the EIA report, 5	4.1E+14	50 km	2.4E-03	1.4E-04	1.3E-04	5.9E-05	1.0E-03	no	no	no	no	no
		100 km	1.1E-03	6.8E-05	5.9E-05	2.9E-05	5.2E-04	no	no	no	no	no
		150 km	6.8E-04	4.4E-05	3.9E-05	1.9E-05	3.5E-04	no	no	no	no	no
Level 6 event not assessed in the EIA report	1.0E+16	50 km	6.0E-02	3.3E-03	3.0E-03	1.4E-03	2.5E-02	no	no	no	no	no
		100 km	2.7E-02	1.7E-03	1.4E-03	7.1E-04	1.3E-02	no	no	no	no	no
		150 km	1.7E-02	1.1E-03	9.5E-04	4.6E-04	8.6E-03	no	no	no	no	no
Level 7 event not assessed in the EIA report	1.0E+17	50 km	6.0E-01	3.3E-02	3.0E-02	1.4E-02	2.5E-01	no	necessary	no	no	necessary
		100 km	2.7E-01	1.7E-02	1.4E-02	7.1E-03	1.3E-01	no	no	no	no	necessary
		150 km	1.7E-01	1.1E-02	9.5E-03	4.6E-03	8.6E-02	no	no	no	no	no
<b>Radionuclide composition in the reactor according to the Institute of Physics</b>												
Worst-case scenario according to the NRC, serious level 7 event	8.00E+17	50 km	2.0E+01	1.9E+00	8.1E-01	4.6E-01	4.1E+00	necessary	necessary	necessary	necessary	necessary
		100 km	1.1E+01	1.0E+00	4.2E-01	2.4E-01	2.1E+00	necessary	necessary	necessary	necessary	necessary
		150 km	7.0E+00	6.5E-01	2.7E-01	1.5E-01	1.2E+00	necessary	necessary	necessary	necessary	necessary
Medium level 7 event	1.00E+17	50 km	2.5E+00	2.3E-01	1.0E-01	5.7E-02	5.2E-01	necessary	necessary	necessary	necessary	necessary
		100 km	1.4E+00	1.3E-01	5.3E-02	3.0E-02	2.6E-01	no	necessary	necessary	necessary	necessary
		150 km	8.7E-01	8.1E-02	3.3E-02	1.8E-02	1.5E-01	no	necessary	no	no	necessary

**Additional comments related to general comment 5 (Radiation effects of accidents).**

<b>Comment No</b>	<b>Paragraph No</b>	<b>Page No</b>	<b>Comment</b>
1.	2.5	39	Figure 9 and its comment in the text are purely of qualitative nature; no information underlying the definition of emergency response zones has been provided.
2.	2.6	39	The document says that safety criteria and design thresholds must meet the ICRP and IAEA guidelines. On the other hand, it says that the values presented in Table 10 meet the requirements of HPБ-99 PΦ. It is completely unclear if this document meets international requirements. In addition, this document and the above-mentioned international guidelines have not been included in the list of references.
3.	4.9.3, 5.1.1, 5.4	97, 102, 112	The relevant values for the design-basis accident under worst-case scenario and beyond design-basis accident are not based on any evidence or references. For instance, according to the serious accident assumptions under NRC-RG-1.4, iodine release to the environment would be several orders of magnitude higher. The activity of emissions to the atmosphere must be based on the calculations made during the analysis, international recommendations supported by relevant references and description of basic assumptions underlying the determination of certain emission values.
4.	5.1.1, 5.1.2	102, 103	The information on cross-border migration of radionuclide pollution analysis is insufficient: <ol style="list-style-type: none"> <li>1. No information on the validation of the software used.</li> <li>2. No assumptions used for modelling the entire migration.</li> <li>3. It is not clear why only three radionuclides were chosen for the model. The quantities of released radionuclides are non-conservative compared to e.g. NRC-RG-1.4 guidelines.</li> <li>4. No short-term and long-term assessment of radiation effects on the population in case of accidents.</li> </ol>

Comment No	Paragraph No	Page No	Comment
5.	5.1.3	105	For the case of beyond design-basis accidents at the NPP, the stated activity of radionuclides emitted to the environment relates to reactors of a different modification, and there is no evidence provided that these emission levels also apply to the Belarusian NPP. There is no justification that such emission assessment approach meets international requirements and best international assessment practice.
6.	5.4	112	The activity of radionuclide emissions to the environment during the beyond design-basis accident under worst-case scenario comprise just a fraction of total radionuclide activity accumulated in the reactor (hundredths of a percent). Moreover, there is no justification for the selection of this portion of activity.
7.	5.4, 5.4.1	115	The population doses calculated for a serious accident have not been compared to the threshold exposure criteria applicable to such accidents. 5.4.1 outlines the protective measures but no specific measures are identified making it unclear if they are realistic in the case of an actual threat. There is no reference to a document used to determine the emergency response zones.

## References

1. Оценка воздействия на окружающую среду, Заявление о возможном воздействии на окружающую среду Белорусской АЭС, Предварительный отчет об ОВОС Белорусской АЭС, Министерство энергетики Республики Беларусь, 2009.
2. Preparedness and Response for a Nuclear or Radiological Emergency, No. GS-R-2, International Atomic Energy Agency, Vienna.
3. Lietuvos higienos norma HN 99:2000 "Gyventojų apsauga įvykus radiacinei ar branduolinei avarijai" Lietuvos Respublikos Sveikatos apsaugos ministro įsakymas 2000 m. liepos 4 d. Nr. 380, Vilnius.
4. INES the International Nuclear and Radiological Event Scale User's Manual, International Atomic Energy Agency, Vienna, 2009.
5. Regulatory Guide 1.4, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss-of-Coolant Accident for Pressurized Water Reactors," U.S. Nuclear Regulatory Commission, Washington, DC.
6. Jones J,A, Mansfield P,A,, Haywood S,M, (1996) PC Cosyma (Version 2): An accidental consequence assessment package for use on a PC, EUR 16239 EN,



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### DĖL NAUJOS ATOMINĖS ELEKTRINĖS BALTARUSIJOJE

Skirgiškių gyventojų asociacija, teritoriškai jungia Vilniaus rajono Skirgiškių kaimo ir aplinkinių 13 kaimų gyventojus. Esame įsikūrę gražioje vietoje prie Neries upės, netoli kultūrinio objekto – Europos skulptūrų parko. Skirgiškių gyventojų asociacija yra susisūpinusi dėl Baltarusijos valstybės planų statyti naują atominę. Remiantis žiniasklaidos pranešimais ir internete pateikta informacija, planuojama pastatyti du branduolinius reaktorius Gardino ar Mogiliovo srityje. Prioritetine laikoma Astravo aikštelė Gardino srityje. Atstumas nuo šios aikštelės iki Lietuvos sienos tik 23 km. Statybos darbus numatoma pradėti 2010 m., o pirmą reaktorių eksploatuoti – 2016 m. Planuojama ūkinė veikla gali turėti neigiamą poveikį Lietuvos aplinkai, nes eksploatuojant atominę elektrinę bus pakeistas Neries upės hidrologinis režimas, be to galima radionuklidų pernaša tiek vandeniui, tiek oru. Įvykus reaktoriaus avarijai galėtų kilti grėsmė Lietuvos aplinkai ir gyventojų sveikatai. Atsižvelgiant į Černobylio avarijos patirtį, kai kurios gyvenvietės po avarijos buvo iškeltos 50-60 kilometrų nuo Černobylio. Avarijos atveju Vilnius patektų į evakuacijos zoną (AE ir Vilnių skirtų apie 40 km). Taip pat yra neaiškūs elektrinės įtakos aplinkai, radioaktyvių atliekų tvarkymo ir kiti klausimai.

Atsižvelgus į šias aplinkybes ir į susirūpinimą dėl galimų vietinių gyventojų gyvenimo sąlygų pablogėjimą, prašome Jūsų kreiptis į Baltarusijos valstybės vadovybę, kad parinktų kitą elektrinės vietą.

Asociacijos vykdančioji direktorė

*P. Ruzgaitis*

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