

Selected Issues of Environmental Conditions, Public Consultations and Cross-Border Consultations on the Construction and Operation of the First Polish Nuclear Power Plant in the Choczewo Municipality Area

Abstract

The purpose of this paper is to describe the environmental impact assessment of Poland's planned first nuclear power plant. The paper presents scientific considerations on the nature of the decision, taking into account the results of this assessment. It is stated that the environmental conditions for the implementation of the project are determined on the basis of an argumentative model of the application of the law. The material and legal basis is the principle of sustainable development.

KEYWORDS: nuclear power plant, environmental impact assessment

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1 | Introduction

Nuclear energy is a virtually inexhaustible source of energy in the form of electricity, heating, and process heat. In the context of the constantly emerging international regulations on radical climate change, countries

must address this challenge. At the international level, the beneficial qualities of nuclear energy in terms of energy and low-carbon aspects are indicated by the International Energy Agency (IEA)^[1] and the International Atomic Energy Agency (IAEA), providing scientific and technical information in this respect^[2]. At the European level, the European Union's bodies and legislation do not explicitly address the benefits of investing in nuclear energy due to the diversity of member countries' positions on this issue. However, the European Union's policies do emphasize the importance of nuclear safety legislation for its member states^[3]. Within the Polish legal system, public administration bodies are working to advance the construction and operation of the first nuclear power plant. Among the strategic legal acts in this regard, one should mention the Resolution of the Council of Ministers of 2 October 2020 on the update of the multiannual program called "Polish Nuclear Power Program"^[4]. The schedule assumes the construction and commissioning of 2 nuclear power plants with 3 reactors each. The construction of the first reactor is scheduled to begin in 2026, with its commissioning expected in 2033. The commissioning of the last reactor in the second power plant is planned for 2043. The construction of large-scale nuclear power plants in the Republic of Poland is of paramount importance to state security, including energy security. These plants are essential for ensuring energy security, which is an element of state security, and for working to reduce and stabilize electricity prices, reduce gas emissions from the electricity sector, and create conditions for the development of a new sector of the economy: nuclear power^[5]. In addition, the Polish Council of Ministers adopted a resolution of June 20, 2023 on the establishment of a multiannual program entitled "Program for supporting infrastructure investments in connection with the implementation of key

¹ International Energy Agency, 'Net Zero by 2050: A Roadmap for the Global Energy Sector' https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d-0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf (accessed 29.04.2024).

² See: Statute of the International Atomic Energy Agency signed in New York on 26 October 1956 (OJ 1958 No. 41, item 187 as amended); for environmental impact standards on nuclear power plants cf. https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1625_web.pdf (accessed 24.04.2024).

³ European Parliament resolution of 14 March 2013 on risk and safety assessments (stress tests) of nuclear power plants in the European Union and related activities (2012/2830(RSP)) (OJ EU 29.1.2016 C 36/12).

⁴ M.P. of 2020. (item 946).

⁵ M.P. of 2022 (item 1124).

investments in strategic energy infrastructure, including a nuclear power plant, in the Pomeranian Voivodeship”. This program allocates financial support for the construction of the first nuclear power plant, amounting to PLN 4,761,777,307 from the state budget^[6].

The above-mentioned strategic, political and legal actions at various international levels indicate that Poland has made an unprecedented decision to invest in nuclear energy. This paper focuses exclusively on the analysis of specific environmental concerns related to the construction and operation of the first Polish nuclear power plant, as outlined in the decision of the General Director of Environmental Protection of September 19, 2023, on the determination of environmental conditions for the implementation of the project entitled „Construction and operation of the first Nuclear Power Plant in Poland, with an electrical capacity of up to 3750 MWe, in the area of the communes: Choczewo or Gniewino and Krokowa” (case sign: DOOŚ-OA.4205.1.2015.125)^[7] in connection with the application of Polskie Elektrowni Jądrowe sp. z o.o. of August 5, 2015 for a decision on environmental conditions for the above-mentioned project^[8].

2 | Location of the Polish nuclear power plant – legal and environmental aspects

The Lubiatowo-Kopalino site was selected as the location for the first Polish nuclear power plant, this being the Jackowo, Słajszewo and Sasino concessions. The project site includes a land part located in Pomorskie Voivodeship,

⁶ M.P. of 2023 (pos. 697); in the resolution No. 84/2023 was also issued in the meantime. Council of Ministers of on 30 May 2023 in on the provision of financing for the construction of a nuclear power station with an electrical capacity of up to 3750 mwe in the municipalities of Choczewo or Gniewino and Krokowa.

⁷ Hereinafter: „Environmental Decision”.

⁸ In the meantime, the General Director for Environmental Protection also issued a decision of 1 February 2024 defining the scope of the environmental impact report for another investment, i.e. the project consisting of the „Construction and operation of a small modular nuclear power plant with a total capacity of up to 1,300 MWe using BWRX-300 technology in the location of Stawy Monowskie, Gmina Miasto Oświećim (case number: DOOŚ-WDŚZOO.420.23.2023.AKA.23).

Wejherowo Powiat, and Choczewo Commune, while the sea part is located within the internal sea waters and territorial sea of Poland.

The environmental impact report submitted by the applicant analyzed two location options for the project: variant 1: the Lubiатовo-Kopalino location and variant 2: the Żarnowiec location Both location variants included technical sub-options for cooling the nuclear power plant. For Variant 1, the technical sub-variants are as follows: 1A: open cooling system using seawater; technical sub-variant 1B: closed cooling system using seawater and technical sub-variant 1C: closed cooling system using desalinated seawater. For option 2, technical sub-option 2A: closed cooling system using seawater and technical sub-option 2B: closed cooling system using desalinated seawater were identified.

Variant 1, i.e. the Lubiатовo-Kopalino location, was selected as the preferred option due to the larger area for efficient construction and operation of the plant and the greater advantages in terms of the possibility to use an open cooling system. The analyses also indicated that an open or closed cooling system using seawater is more efficient than a closed cooling system using desalinated seawater, irrespective of the location of the project. This is because the analyses involve the energy intensity of large desalination plants. Additional environmental factors contribute to the suboptimal performance of a closed cooling system using desalinated seawater.

Regarding the technical sub-variants, the one marked with the order number 1A was selected. This system will utilize seawater for cooling the condensers, engine room equipment, and intermediate equipment cooling systems. The separation of seawater for cooling the conventional island (i.e., the condensers and engine room equipment) and the equipment cooled by the indirect equipment cooling system will take place in the inflow basin of the power plant. Water will be drawn into this basin by gravity directly from the sea located next to the power station, through a system of channels, and then filtered and pumped by two groups of pumps towards the condenser and engine room equipment and towards the exchangers of the indirect equipment cooling system. After flowing through the turbine condenser, the engine room equipment cooling system heat exchangers, and the equipment indirect cooling system heat exchangers, the water will be diverted into an outflow basin. From there, it will return to the sea by gravity. Furthermore, the sensitivity analysis carried out in the course of the investigation showed that technical sub-option 1A performs best on a variety of criteria relating to environmental aspects that are linked to some of the most significant environmental impacts of

the power plant, such as impacts on the landscape, vehicle traffic during the construction phase, and impacts on the acoustic climate. Additionally, it pinpointed the optimal technical and financial aspects.

The environmental decision noted that the works carried out will lead to an irreversible change in the structure of individual soil horizons and the sequence of these horizons, and consequently to the destruction of the current soil profile. To minimize these impacts, obligations have been imposed on the applicant. These obligations include dewatering deep construction excavations with the use of filter screens, including sheet piling, insulation of the bottom of the excavation, treatment of water from the excavations before it is discharged into the receiver, and obligations to carry out proper water and sewage management. Additionally, the report outlines a waste management strategy tailored to the various phases of nuclear power plant construction and operation.

To determine the impact on protected landscapes, eight forms of nature conservation were identified and characterized within the combined study area in the Environmental Decision. These forms of nature conservation include: Slowinski National Park with buffer zone, Nadmorski Landscape Park with buffer zone, Nadmorski Area of Protected Landscape, Choczewsko-Saliński Area of Protected Landscape, Area of Protected Landscape of Darżłubska Forest, Area of Protected Landscape of the Reda-Leba Proglacial Valley, Area of Protected Landscape of the Łeba Valley, Area of Protected Landscape of Fragment of the Łeba Proglacial Valley and Moraine Hills south of Lębork. The report analyzes the values of the indicated areas, their protection objectives, and threats. All the protected areas mentioned above, located within the combined study area, were assessed as being of high sensitivity. The analyses carried out showed that the project will have a high and significant impact on the Maritime Protected Landscape Area at all stages of implementation. The project site is entirely within the Maritime Protected Landscape Area. It has been determined that the situation will change when the construction is completed and the power plant begins normal operations. Once ancillary structures (e.g., scaffolding, construction cranes) are dismantled, construction equipment is removed, building elevations are completed, and the site is tidied up, only the shield buildings and the engine room will be a dominant feature in the landscape.

As regards the analysis of the current state of air quality presented in the report, i.e. prior to the introduction of substances into the air at the stage of project implementation and at the stage of project operation, it was determined that the concentration of the listed harmful substances

does not exceed the applicable permissible levels, set out in the Regulation of the Minister of the Environment of 24 August 2012 on the levels of certain substances in the air^[9] and reference values, set out in the Regulation of the Minister of the Environment of 26 January 2010 on reference values for certain substances in the air^[10]. Concurrently, the General Director of Environmental Protection stipulated in the operative part of the decision an obligation on the applicant to undertake measures aimed at minimizing potential negative effects within the aforementioned scope. The potential impact of the nuclear power plant on groundwater and surface waters, including water bodies, was identified within the range of the project's impact. This includes the Natura 2000 protected areas Mierzeja Sarbska PLH220018 and Przybrzeżne wody Bałtyku PLB990002 and the Nadmorski Obszar Chronionego Krajobrazu. In the opinion of the General Director for Environmental Protection, the analysis of the impact of the project on marine waters, conducted in the course of the proceedings, based on the identified impacts, the range of occurrence of the inventoried plant and animal species and the sensitivity of the individual elements of the assessment affecting the values of the features, allowed it to be determined that in relation to the features of the marine environment indicated in the ICZM, in the case of none of them no impacts were identified which could significantly affect the deterioration of the state of the environment. During the proceedings, several natural habitats were identified. As a result, the operative part of the Environmental Decision imposed a number of preventive obligations on the applicant to protect them. First and foremost, the General Director of Environmental Protection imposed a general obligation to carry out preparatory works and construction works under the supervision of a naturalist, consisting of qualified specialists who are competent and have specialist knowledge of, inter alia, the biology and ecology of a given group of fauna. The specific obligations include the planting of low vegetation typical of the habitats surrounding the project site, the hanging of nesting boxes for birds, the hanging of bat boxes, and the conducting of plant and insect inventories.

The operative part of the decision also establishes other obligations, including those relating to adequate security for preparatory and construction works, protection against noise—including marine noise, extensive monitoring of space and environmental elements, light management, soil

⁹ Journal of Laws 2021, item 845.

¹⁰ Journal of Laws. No. 16, item 87.

and ground investigations, or the establishment of tree and shrub protection zones. It is essential to recognize that the potential intrusiveness and technical complexity of the nuclear power plant construction and operation project necessitate such a multifaceted and comprehensive environmental analysis and the fulfillment of its outcomes. The environmental documentation has undergone a thorough review by the Polish public and by countries that have experience with the impact of nuclear power plants.

3 | Public consultation

During the Environmental Decision proceedings, the General Director for Environmental Protection received 825 comments as part of ongoing public consultations on the implementation of the planned project to build and operate a nuclear power plant in the Choczewo municipality area. A significant portion of these comments addressed the understandable concerns of individuals regarding the investment, which, given its scale and potential risks, is valid and understandable. Due to the very wide range of the nature and subject matter presented in the comments, the most relevant ones will be selected, particularly from a legal, strategic and environmental perspective.

First of all, it should be pointed out that some of public comments were addressed collectively, with responses referencing other comments that addressed similar issues. This approach to comments included a discussion of the perceived superiority of renewable energy sources over nuclear power. Participating entities argued, among other points, that this advantage stems from lower CO₂ emissions, a greater impact on climate protection, higher efficiency, lower costs for this type of investment, and lower risks for people and the environment. They also advocated for an alternative concept consisting of the expansion of renewable energy sources or the consideration of forward-looking, clean, cheap, and democratic energy sources. In general, the General Director of Environmental Protection considered that the aforementioned comments were beyond the scope of the case and that, as an authority, he lacked the competence to modify the applicant's request in the environmental decision procedure. The response indicated that if the investor intends to construct a nuclear power plant and the applicant has met the conditions outlined in the Environmental

Protection Act, the competent authority is obligated to issue an environmental decision. Regarding the project's impact on climate objectives, the authority stated that the project aligns with Poland's strategic assumptions outlined in the Program of the Polish Energy Policy 2030, the Energy Policy of Poland to 2040, and strategic documents adopted by the Council of Ministers. In accordance with the currently binding Energy Policy of Poland until 2040 (PEP2040), among the specific objectives, in addition to the development of renewable energy sources, the implementation of nuclear energy and the implementation of the Polish Nuclear Power Program were indicated. Moreover, in Volume I of the report, in chapters TI.6 – Justification of project realization and TI.7 – Project against the background of strategic documents, an analysis was conducted on how the project fulfills the goals and assumptions of the strategy, at the national level as well as the EU and international level, including the assumed climate goals. Regarding the aforementioned comments, it has been reported that emission monitoring and individual environmental component monitoring will be carried out, including radiation monitoring. Specifically, radiation monitoring will be conducted at the power plant site and in the surrounding environment. Additionally, the radioisotopic composition of various samples will be examined, including leafy vegetables, root vegetables, potatoes, fruit, cereals, grasses, milk, meat (including poultry and game), eggs, fungi, mosses, lichens, needles, leaves, fish, crustaceans, mollusks, seaweeds, benthic organisms, and products served in local canteens. Sediments at the bottom, sludge (sewage sludge), and sand from coastal beaches (for coastal locations) will also be tested for isotopic composition analyses. Radiation monitoring in the vicinity of the nuclear power plant will also include specific dosimetry measurements of selected individuals from the general population living in the vicinity of the plant.

An important issue was also raised by the participants regarding the selection of the location of the nuclear power plant. The General Director for Environmental Protection mentioned that the selection of potential locations for the first Polish nuclear power plant was preceded by many years of research, which took into account factors such as population density, terrain characteristics, availability of cooling water, natural environment, current land use, and logistics and infrastructure, i.e. proximity to energy transmission networks, road and rail networks. The authority pointed out that in January 2014. The Council of Ministers adopted the Polish Nuclear Power Program, hereinafter PPEJ, which analysed 27 potential locations for a nuclear power plant in Poland. Already then,

3 potential coastal locations were identified: “Choczewo”, “Żarnowiec” and “Lubiatowo-Kopalino”. Ultimately, studies and analyses showed that the best conditions for the siting of the first nuclear power plant are in the Pomeranian Voivodeship. This is supported by, among other things: a significant demand for electricity and the lack of large, available generation sources in the area, access to cooling water, and the possibility of transporting large loads by sea. In view of the above, two locations were analysed in detail in the report: Variant 1 – the Lubiatowo-Kopalino location and Variant 2 – the Żarnowiec location. The “Żarnowiec” site was not indicated as the preferred location for implementation due to a number of aspects, including technical, environmental and social factors (e.g. the need to demolish approximately 180 buildings). The environmental authority also added that the location of the nuclear power plant in Pomerania is included in the Pomorskie Voivodeship Development Plan 2030 (adopted by Resolution No. 318/XXX/16 of the Sejmik of Pomorskie Voivodeship of 29 December 2016^[11]) and the amendment to the Pomorskie Voivodeship Spatial Development Plan adopted by Resolution No. 1004/XXX1X/O9 of 26 October 2009. Sejmik of Pomorskie Voivodeship^[12].

Some members of the public also expressed clear disapproval with regard to the interference of the planned project with the landscape and the destruction of the beach in its area, i.e. interference with the Nadmorski Obszar Chronionego Krajobrazu, Obszar Natura 2000 Mierzeja Sarbska PLH220018 and Przybrzeżne wody Bałtyku PLB990002. The environmental authority stated that the environmental impact assessment of the project determined there would be no significant negative impacts related to the designated protected areas. As a result, the authority issued a series of obligations to the applicant in the Environmental Decision, including the requirement to construct the canals and cooling water pipelines using a trenchless method. This method utilizes tunnel boring machines deep beneath the granite surface, eliminating the need for open excavations and beach destruction. It was also argued in this regard that the area indicated is not historically an area untouched by man – the coastal strip was partly planted at the turn of the 20th century. The project site is located to a large extent in the area of the State Forests and forest management is carried out there, while the area necessary for the operation of the power plant, i.e. after the construction phase, will be smaller and will cover

¹¹ OJ. Pomeranian Voivodeship 2017, item 603.

¹² OJ. Pomorskie Voivodeship of 2009, item 172.

approximately 186 ha and the area necessary for deforestation on the basis of separate regulations and fire prevention recommendations. The authority has indicated that during the operation of the nuclear power plant, the beaches will not be excluded from use and will be generally accessible to tourists and the local community.

The subject of comments was furthermore the lack of access of the nuclear power plant to technical and road infrastructure. The General Director of Environmental Protection stated that this accessibility was one of the evaluation criteria for the selection of sites for the construction of a nuclear power plant, however, the evaluation criteria affecting the final selection of the two potential nuclear power plant sites also include several other relevant conditions, including the surface of the land, availability of cooling water, seismic/geological hazards, environmental issues, as well as socio-economic aspects. Accordingly, the above infrastructure is planned to be constructed. According to the authority, the built accompanying infrastructure for the nuclear power plant will add value that will benefit the local community. In the long run, it will affect the accessibility to the northern part of the Wejherowo and Lębork Poviats, which will increase its attractiveness and enable future development. The issue of the region's diminished tourism development and the consequent challenges faced by individual entrepreneurs is a matter of significance. In response to comments on this subject, it was noted that the Senate of the Republic of Poland commissioned a study which aimed, among other things, to determine whether the location of a nuclear power plant in a tourist area has an impact on tourist traffic, i.e., a reduction in it. The objective of the study was to address the question of whether it is possible and acceptable to locate a nuclear power plant in a tourist area and what the consequences for the local community would be. The study drew upon the experience of other European countries in this regard. To this end, pertinent inquiries were directed to regions where such facilities are currently operational. The responses indicated that the presence of a nuclear power plant in a region does not reduce tourism, but often generates additional tourism^[13].

Mindful of the experience of nuclear power plant disasters, comments on the emergency evacuation plan for the population cannot be ignored. The General Director for Environmental Protection indicated in this respect that at the stage of obtaining the Environmental Decision the above plans are

¹³ <https://www.senat.gov.pl/gfx/senat/pl/senatopracowania/73/plik/ot-575.pdf>

not required. However, these plans will be mandatory during the procedure for issuing a permit by the State Atomic Energy Agency President to start up the power plant. The company emergency plan, as well as the provincial and national emergency plans prepared by the relevant authorities, will be part of this process. It was noted that the social risk of an accident associated with the operation of three modern AP1000 units (generation 111+, with passive safety systems) is minimal and at an acceptable level, according to the latest international standards of nuclear safety and radiological protection^[14]. At the same time, it was indicated that, in accordance with the requirements of the provision on the scope of the environmental impact report, calculations of the range of emergency planning zones and distances and the range of individual types of intervention (in the event of a severe accident with reactor core meltdown) were performed and presented.

Moreover, the authority's response to the comment on the disturbed biodiversity of land occupied by nuclear power plants seems interesting. Indeed, scientific studies have been pointed out^[15], which argue that nuclear energy has the least impact on land use among energy technologies and requires 460 times less land than wind energy and 57 times less land than solar energy. Furthermore, to produce the same amount of energy, nuclear energy requires the smallest area – just 0.1 km² to produce 1 TWh. Thus, it occupies less area and thus its impact inherently causes less reduction in biodiversity.

Some of the comments also referenced the project's substantial costs and economic inefficiency. In response, the environmental authority noted that, according to state specialist documentation^[16], the total costs to be borne by society are the lowest for nuclear power. Given the need to move away from carbon-intensive sources such as coal and gas, nuclear power remains the cheapest alternative source of electricity generation. Furthermore, nuclear power, unlike RES, is a stable source of energy. The stabilization of RES-based generation sources requires the use of large-scale energy storage systems, which are unfortunately very expensive and inefficient

¹⁴ Preparedness and Response for a Nuclear or Radiological Emergency General Safety Requirements. IAEA Safety Standards Series No. GSR Part 7. International Atomic Energy Agency. Vienna, 2015.

¹⁵ Barry W. Brook, Corey J.A. Bradshaw, „Key role for nuclear energy in global biodiversity conservation” *Conservation Biology*, No. 4 (2014).

¹⁶ Analysis and Assessment of the Cost of Electricity from Different Energy Sources in Poland, developed in 2015 by the National Centre for Nuclear Research (NCBJ SJ REPORT No: B - 27/2015).

at the present time. The spread of RES in the future will on the one hand seemingly make them more competitive with nuclear power, however, in reality it will require very large expenditures for the modernization of the entire national transmission infrastructure, which in the financial balance will still make nuclear power the most cost-effective. Nevertheless, it was raised that, according to Polish law, no cost-benefit analysis is prepared and attached to the environmental decision. At the consultation stage, the issue of the project's high demand for water was also raised, which, with progressive water shortages, could result in interruptions in the operation of the power plant. The General Director of Environmental Protection clarified that the project's construction phase will be supported by water sourced from dedicated deep-water intakes. The water will undergo treatment in a dedicated water treatment plant. Once the construction of the power plant is completed, the water treatment station will be transferred to the Choczewo municipality to supply the existing municipal water supply system in Kopalino. The authority indicated as a possible scenario in which the water intake in question will be used during the operation stage, but as an emergency source of water for social and domestic needs and not as an emergency source of reactor cooling water. The main projected source of water used during the operational phase for technological, welfare, and fire-fighting needs will be seawater and desalinated seawater. There will therefore be no risk of interruption of plant operations due to water shortages as the plant cooling systems will be supplied with seawater, meaning that access to water will be constant and predictable as it will not be subject to seasonal fluctuations.

Given the information presented, it is reasonable to conclude that there is a significant degree of public interest in the planned investment to build and operate a nuclear power plant. This is not surprising given the uniqueness and size of this investment. It was therefore necessary on the part of the environmental authority to be particularly diligent and professional in the procedure of obtaining the Environmental Decision by the applicant and in the consideration of comments during public consultations. Generally speaking, the manner in which the comments of the participating entities were dealt with should be assessed correctly, as in principle the authority's responses were factual, expert and rather comprehensive. Moreover, the General Director of Environmental Protection explained the decision to build a nuclear power plant to the public in political and strategic terms already at the legal-environmental stage of the investment. In turn, the public submitted substantive comments based

on special knowledge in the fields of geology, biology, landscape, energy, physics, and chemistry. These comments should be assessed favorably in terms of the necessity of civil society participation in a democratic state under the rule of law, especially in such important investments. Eighteen comments were thoroughly reviewed, either in full or in part.

4 | Cross-border consultations

An official notification on a possible significant transboundary environmental impact, pursuant to Art. 109 par. 1 of the Environmental Protection Act, was sent by GDOŚ to the countries directly neighboring Poland, i.e.: Germany, the Czech Republic, Slovakia, Ukraine, Belarus, Lithuania and Russia. Due to the location of the project in the coastal strip, it was also sent to the countries of the Baltic Sea basin: Latvia, Estonia, Finland, Sweden, and Denmark. Based on the results of the transboundary environmental impact proceedings for the Polish Nuclear Power Program conducted in 2011-2014, the General Director for Environmental Protection also found it necessary to officially notify Austria. Additionally, information regarding the initiation of the proceedings for the issuance of a decision on environmental conditions was electronically transmitted to other countries within 1,000 km of potential nuclear power plant sites, namely: These countries include: Norway, Moldova, Romania, Serbia, Croatia, Slovenia, Hungary, Italy, Switzerland, France, Luxembourg, Belgium, and the Netherlands. All notified countries provided responses. The Netherlands and Hungary formally requested to be included in the proceedings, as permitted by Article 104(2) of the Environmental Protection Act.

At the same time, by Resolution No. 174/2022 of 12 August 2022. the Council of Ministers terminated the Agreement between the Government of the Republic of Poland and the Government of the Russian Federation on cooperation in the field of environmental protection, drawn up in Warsaw on 25 August 1993, so that cross-border consultations with the country were not subsequently undertaken.

In accordance with Article 4 and Article 5 of the Convention on Environmental Impact Assessment in a Transboundary Context, drawn up

in Espoo on 25 February 1991^[17], the General Director for Environmental Protection forwarded the documentation, including the environmental impact report, to: Austria, Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, the Netherlands, Slovakia, Sweden, Ukraine and Belarus.

The Czech Republic, Finland and the Netherlands did not comment on the submitted documentation. Slovakia, Lithuania, Estonia, Sweden, Ukraine, Belarus and Hungary submitted comments to the report, requesting written explanations. Denmark, Latvia, Austria, and Germany submitted comments to the report and requested that cross-border intergovernmental consultations be organized in the form of a meeting of experts pursuant to Article 5 of the Espoo Convention. Meetings were held with the countries that requested the organization of cross-border intergovernmental consultations in the form of a meeting of experts pursuant to Article 5 of the Espoo Convention: On February 1, 2023, with Latvia; on April 17, 2023, with Germany; on May 22, 2023, with Denmark; and on June 1, 2023, with Austria. Each meeting concluded with the drafting of minutes of the cross-border intergovernmental consultation in the form of a meeting of experts, which were then signed by the heads of delegation from each country.

Austria provided the Polish Party with comments to the report on reactor technology, spent nuclear fuel, radioactive waste, nuclear safety in terms of accidents and external events including natural and anthropogenic hazards, and during the meeting discussions were held on strategic documents related to the nuclear power sector in Poland, concepts for spent fuel and radioactive waste management and plans for the implementation of a spent fuel repository. After the Polish Party submitted its response, the Austrian Party reviewed the provided explanations in writing and deemed the explanations obtained during the consultations, which were conducted in the form of a meeting, to be sufficient. Consequently, pursuant to Article 5 of the Convention, it was agreed that the consultations would be concluded by signing a protocol. Additionally, Austria provided the Polish Party with 10 detailed recommendations concerning the construction and operation of the nuclear power plant.

The Belarusian delegation's comments and position focused on the potential radiation impact of the nuclear power plant on the environment in a transboundary context. They took into account the predicted radiation doses and the designation of emergency planning zones in case of an

¹⁷ Journal of Laws. No. 96, item 1110, hereinafter: the „Convention”.

off-design accident. The Belarusian side also requested additional information from the Polish side regarding the seismic and tectonic conditions in the area of the planned project location, reactor technology in the context of nuclear safety, and the management of spent nuclear fuel and radioactive waste. The Polish side provided Belarus with answers regarding these inquiries, while informing them that the transboundary consultations had been terminated due to the fact that the Belarusian Party had exceeded the timeframe set in accordance with Article 2, paragraph 5, of the Convention.

Denmark submitted comments on nuclear safety, including the likelihood of a severe accident with reactor core meltdown, accidents leading to large releases of radioactive substances and a probabilistic safety analysis. Denmark also requested clarification regarding the utilization of ventilation filters for the release of gaseous radioactive waste. In response to the Polish Party, Denmark expressed its readiness to engage in international consultations, in the form of a meeting, to address the safety of nuclear power plants in the face of external and terrorist threats, including cyber attacks. This meeting would also address the need to ensure adequate safety measures in the event of major accidents, the provision of qualified personnel during the construction and operation of the facility, and the prospects for further development of nuclear power in Poland. Denmark also requested clarification regarding the independent verification of the calculations used for the source members. Following the Polish Party's response to the questions raised, Denmark made no further comments, and the consultations were concluded by the signing of the protocol.

The Estonian side provided comments to Poland regarding the potential impact of the project on fisheries and ichthyofauna. These comments took into account the location of infrastructure for intake of cooling water and discharge of cooling water with treated industrial effluent. They also considered the potential impacts on landscape and forest management depending on the project variants and technical sub-options assessed. Upon receipt of the response from the Polish Party, Estonia indicated that the responses had been provided at an appropriate level and that it had no additional comments on the report. As a result, the transboundary consultation with the country was deemed to be terminated in accordance with Article 2(5) of the Convention.

Lithuania requested additional clarification on the values used in the report for the discharges of radionuclides into the environment during normal operation and following an accident. It also commented on the transport and management of radioactive waste. In terms of the project's

impact on the marine environment, concerns were raised about dispersion of radionuclides in marine waters and temperature changes resulting from the discharge of cooling waters. In terms of the project's location, further clarification was sought on activities related to site selection and assessment, including ensuring nuclear safety and radiological protection. The Lithuanian side also requested further clarification on possible external threats and indication of the envisaged emergency preparedness recommendations in Poland, such as danger zones and protective measures for the population. Upon receipt of the response from the Polish Party, Lithuania determined that the responses were provided at an appropriate level and that it had no additional comments on the report. Therefore, the transboundary consultations with the country were considered closed pursuant to Article 2(5) of the Convention.

Latvia provided detailed comments to the environmental impact report on the analyses and precautions for nuclear accidents due to warfare. The report includes results and modelling analyses of radiation doses in relation to exposure pathways and absorbed doses. In response, the General Director of the Environmental Protection Agency provided further insights and proposed the organization of international consultations abroad under Article 5 of the Convention. During the meeting, Latvia also requested clarification on the operation of passive systems and whether the absorbed dose values for the thyroid gland relate to the accident of only one reactor. The meeting also featured the presentation of the results of a comprehensive estimation of maximum effective doses for a severe accident. This estimation was conducted from all exposure pathways for selected distances, including 50, 100, 300, 500, 700, and 1,000 km. In addition, at the request of the Latvian Party, clarification was provided on the management of spent fuel and radioactive fallout, including plans for the implementation of a surface repository and a deep repository. Following the submission of the response by the Polish Party, no further comments were made by Latvia and the transboundary consultations were concluded by the signing of the protocol, pursuant to Article 5 of the Convention.

Regarding the AP1000 reactor technology, nuclear safety in the event of accidents and external events, including anthropogenic hazards, and the management of spent nuclear fuel and radioactive waste, Germany has provided comments. The German side requested a presentation on the status of implementation in Poland of international regulations and guidelines on nuclear safety requirements (International Atomic Energy Agency and Western European Nuclear Regulators' Association). In response, the Polish

side outlined the schedule for international foreign consultations, scheduled to take the form of a meeting. During the meeting, the Germans sought information regarding the safety of nuclear power plants in the event of external and terrorist threats, including cyber attacks, aircraft impact, and securing the nuclear facility against the effects of war. Additionally, the meeting addressed concepts for the management of spent fuel, low- and intermediate-level waste, and plans for the construction and operation of a spent fuel storage facility at the planned project site and a deep repository for radioactive waste in Poland. The German side considered Poland's responses on the aforementioned issues to be sufficient, resulting in the signing of a protocol concluding transboundary consultations with the country under Article 5 of the Convention.

In their commentary, the Slovakian delegation underscored the necessity to incorporate within the report a discussion of emergency events that have the potential to impact the environment and the populations of neighboring countries. The commentary further addressed the lack of sufficient information necessary to assess such situations, as well as the management of radioactive waste generated during the operation of the nuclear power plant and the reprocessing of spent nuclear fuel, the storage of high-level waste, and the need to develop in the report the issue of the impact of climate change on the operation of the nuclear power plant due to the projected increased water levels in the Baltic Sea. Slovakia also recommended that the Polish Party consider the condition set out in Commission Delegated Regulation (EU) 2022/1214, the so-called EU taxonomy^[18], in particular: the identification of the planned start and completion of a deep repository for radioactive waste, or a high-level waste repository to be operational by 2050 in accordance with the above-mentioned Commission Delegated Regulation, the creation of a radioactive waste management fund and a decommissioning fund, and the use of accident-resistant fuel. After Poland had provided the Slovak Party with its response to the comments raised, it did not submit any further comments and considered the clarification phase to be concluded, with the result that the transboundary consultation was deemed to be terminated pursuant to Article 2(5) of the Convention.

¹⁸ Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards business activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards the public disclosure of specific information in relation to those business activities (OJ EU L. 2022 No. 188, p. 1).

The Swedish side provided commentary on the impact on the marine environment, taking into account the location of the intake and discharge infrastructure for cooling water and the use of hydrazine and nutrients in the technological processes during the operation of the power plant. This commentary also covered conventional and radioactive waste management, climate change adaptation, as well as the assessment and justification of the project in relation to Directive (EU) 2009/28/EC of the European Parliament and of the Council of 11 December 2008 on the promotion of the use of energy from renewable sources^[19], the risk of a major accident in the context of a negative impact on food production in Sweden, the choice of reactor technology, the use of best available techniques and the management of radioactive waste and spent nuclear fuel. Poland has provided detailed explanations and measures to minimize the negative consequences of the consequences projected in the comments to the above-mentioned extent. Subsequently, no additional comments were made by the Swedish Party, with the result that the transboundary consultation was considered to be closed pursuant to Article 2(5) of the Convention.

Ukraine communicated Poland's position on the report, requesting clarification on the analyses of the meteorological scenarios in the context of radionuclide emissions and radiation dose results. Ukraine also commented on the possibility of extending the lifetime of the planned project, the planned decommissioning stages of the project and the methods of calculating the carbon footprint of nuclear technology and alternative technologies. The Ukrainian party also requested clarification on the delimitation of buffer zones and the various project areas presented in the environmental documentation, the presentation of the stages of implementation of the nuclear facility, and how the obligations under the Vienna Convention on Civil Liability for Nuclear Damage, done at Vienna on May 21, 1963^[20] and the Protocol Amending the 1963 Vienna Convention on Civil Liability for Nuclear Damage, done at Vienna on September 12, 1997^[21], including how to respond and notify neighboring countries when a nuclear accident occurs, including as a result of terrorist attacks. In addition, the following clarifications were requested: management of spent fuel, disposal of radioactive waste, analysis of accident situations, project options, and operational and capital expenditure. Following the Polish Party's response, Ukraine made

¹⁹ Dz.U.UE.L.2018.328.82

²⁰ Journal of Laws of 1990, No. 63, item 370 as amended.

²¹ Journal of Laws 2011. No. 4, item 9

no further comments, and the transboundary consultation was deemed to be terminated pursuant to Article 2(5) of the Convention.

Finally, the Hungarian Party has requested clarifications on the abbreviations and definitions used in the report. The comments pertained to the abbreviations employed for design accidents, the terminology utilized in the definitions of incidence and probability of occurrence, core damage, and large release. Hungary also requested clarifications on the aspects of nuclear safety, physical protection, and nuclear safeguards described in the report. In the context of nuclear safety, comments were also made on the assumed level of design external hazards and their frequency of occurrence, as well as on large releases of radioactive substances into the environment or large early releases in terms of emergency planning needs. Following Poland's detailed responses, the Hungarian party had no additional comments, and the transboundary consultations with this country were therefore considered closed under Article 2(5) of the Convention.

The General Director of Environmental Protection also referred to certain groups of topics raised at the stage of cross-border consultations in the Environmental Decision. He noted that some of the concerns raised about the environmental documentation were premature and would be addressed in subsequent procedures concerning the implementation of the investment in question. These concerns included the establishment of contingency plans and the investor's obligations regarding technical regulations, which are contained in separate administrative acts such as the power plant start-up permit or the construction permit. The consulting states also inquired about several geological, engineering, and radiation specifications, to which the Polish side provided specialist documentation produced for the Environmental Decision procedure, as well as international conventions, directives, recommendations, guidelines, and safety standards of recognized professional associations. The commonly submitted comments regarding the threat of terrorism and war were further clarified by plans to design and implement an appropriate physical protection system for the nuclear power plant. The Polish side also provided assurances about the protection of the project by the relevant state authorities as a critical infrastructure facility of the country. The authority also noted that the development of external threats affecting the safety of the power plant is further described in chapter II.11.3.5 of the environmental impact report submitted by the applicant. The General Director for Environmental Protection also noted that a cost-benefit analysis is not required for the

application for a decision on environmental conditions for nuclear power facilities and accompanying infrastructure^[22].

Nevertheless, it was indicated that in the environmental impact report analyses were carried out with regard to the project's impact on socio-economic aspects, including, among others, selected economic aspects and the impact on the economy. The report also included a comparative analysis of the location options, taking into account financial considerations such as capital expenditure and operating costs.

At the current stage of the investment project for the construction and operation of the first Polish nuclear power plant, the environmental authority has submitted information and explanations to the consulting states in an adequate and even, in certain cases, broader scope than required. Moreover, the fact that the transboundary consultations with each country with which the Republic of Poland should have carried them out, on the basis of conventions and agreements binding on it, have been completed without question should be regarded as satisfactory. The General Director for Environmental Protection has demonstrated a commendable level of responses, showcasing extensive and multi-faceted expertise, as none of the states raised any additional comments regarding the content. This transboundary consultation is also a valuable experience and an example of the broadening international legal trend towards transboundary cooperation between authorities, which is currently taking place even within the framework of European Union law.

5 | In consideration of the findings from the evaluation

Pursuant to Article 8 of Directive 2011/92/EU^[23], the results of the consultations and the information obtained during the environmental impact assessment procedure shall be duly taken into account in the decision

²² This results from art. 10b para. 3 pt. 2 of the Act of 10 April 1997. – Energy Law (Journal of Laws of 2022, item 1385, as amended).

²³ Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects^[23] of certain public and private

(to authorize the development project). The results of the environmental assessment are therefore intended to provide material for the decision to authorize the development. The point is that the environmental assessment has an impact on the conditions for the implementation of the project. According to Article 8a(1) of Directive 2011/92/EU, the decision is to include any environmental conditions “submitted with the decision”. The decision must also to include a description of the “measures envisaged to avoid, prevent or reduce and, as far as possible, offset significant adverse effects on the environment”.

Making these findings the subject of consideration means that the Directive obliges them to be analyzed and confronted with each other. In other words, the provisions of the Directive oblige one to weigh the reasons for and against carrying out investments based on the findings of the assessment. This conclusion is also justified in the context of the principles underlying the adoption of the Directive. The principle of sustainable development is of particular importance in this situation. Indeed, one aspect of the principle of sustainability is the search for a balance between the benefits arising from the realisation of an investment and the possible environmental effects. Information about these effects is to be provided by the assessment procedure. Finding this balance is the task of the authority that is deciding on the permit. This balance is expressed in the requirements imposed on the investment in the permit. The consideration of environmental protection issues (the results of the environmental assessment) in the issuance of an investment permit is an integral component of implementing the principle of sustainable development, as it enables the determination of “balanced” conditions for its implementation. The environmental impact assessment of a project is regarded as a fundamental institution of sustainable development^[24].

This interpretation of Article 8 of the Directive is also in line with its objectives. The adoption of the directive was intended to reshape decision-making processes in such a way that environmental considerations are taken into account. At the same time, it is not a question of giving priority

projects on the environment (consolidated text) (OJ. EU.L. of 2012. No. 26, p. 1 as amended, hereinafter: „the Directive”.

²⁴ Michał Stępkowski, „Sustainable development in the legal system – a Review” *Law and Environment*, No. 4 (2010): 141.

to environmental protection, but of weighing up all the rationales for implementing investments^[25].

There are views in the literature that the environmental assessment of a project is a procedural institution and that the requirement to carry it out

is a necessary part of the decision-making process, but its findings, although they must be taken into account, are not usually conclusive. They merely ensure that the environmental aspects are treated equally to the social, economic and other considerations that the decision-making authority must consider^[26].

Similarly, other authors note that:

The decision-making authority is obliged to take into account both the information on the environmental impact of the project and the results of the consultation. However, it is important to note the ancillary (and not decisive) nature of this procedure when taking an investment permit^[27].

These views (especially the first of the cited ones) seem to partially describe not so much the legal state as the actual meaning of this institution in the practice of Polish administration. However, since the Directive requires that the results of the environmental assessment be taken into account and also requires that the decision taken be justified by reference to these considerations, this means that the provision of Article 8 of the Directive is of a substantive nature. It would be of purely formal nature if the directive's provision were limited to the obligation to consider the results of the environmental assessment of a project. However, since there is a requirement to weigh up these results and the effect of that weighing must be reflected in the content of the decision, the provision is substantive in nature. Despite the fact that there are no substantive provisions in the directive laying down requirements for projects, the institution of an environmental assessment is only *prima facie* of a purely procedural nature. Article 8 of the directive is substantive in nature even though it

²⁵ Jerzy Jendrośka, Magdalena Bar, *Prawo ochrony środowiska – podręcznik* (Wrocław: Centrum Prawa Ekologicznego, 2005), 143.

²⁶ *Ibidem*, 143.

²⁷ Janina Ciechanowicz-McLean, Zbigniew Bukowski, Bartosz Rakoczy, *Prawo ochrony środowiska. Komentarz* (Warsaw: Wolters Kluwer, 2008), 133.

does not contain requirements for the project. It establishes a foundation for specifying requirements in the permit by considering the outcomes of the environmental assessment of the project. It is noteworthy that German literature also emphasizes the substantive nature of this legal norm, despite the environmental assessment of a project being regarded as a procedural matter^[28].

In accordance with Article 9(1)(a) of the Directive, the competent authority shall make public “the content of the decision and the conditions referred to in Article 8a(1) and (2) submitted with it” and under point (b) the main reasons on which the decision is based. The indicated disposition of Article 9 of the Directive requiring a statement of reasons in the context of the content of the decision should be read as an obligation to set out the process of weighing up the rationale preceding the authorization. The weighing of these reasons constitutes the justification for the decision taken. The rationale will not include a reference to substantive law. Instead, the complete weighing process, including the prioritized rationales, should be presented.

The authority issuing the permit is responsible for the process of weighing the reasons for implementing the project, since it is the authority which gives the reasons on which it based its decision. The authority may decide that the results of the environmental assessment, which would indicate the need to modify the project or even refuse its execution, must in a particular case give way to other reasons regarding the execution of the investment. These other rationales could be, for example, matters of national security or economic development. Importantly from the point of view of the provisions of the Directive, the results of the environmental assessment were taken into account as they are to be considered – which is not the same as binding the content of the decision to the content of the assessment results. Any determination made under Article 9 of the Directive will require justification by reference to the results of the environmental assessment and an indication of the reasons for the content of the decision made.

The basis for shaping the content of the permit in view of the results of the environmental assessment is the weighing of premises concerning the implementation of the investment. The expression of this weighing will be the content of the justification for the decision, which, by presenting

²⁸ Hans-Uwe Erichsen, Dirk Ehlers, *Allgemeines Verwaltungsrecht* (Berlin: C.H. Beck, 2006), 497, and the literature and case law indicated therein.

the process of consideration, should demonstrate the authority's judgement in accepting the conclusions of the environmental assessment.

A characteristic requirement possible for the environmental assessment of a project due to the rationale weighting formula is the comparison of project alternatives. This formula, which is not based on substantive regulations "in advance" defining the requirements for the investment, is the only way to justify the decision by demonstrating its advantages in the context of alternative solutions.

The consideration of alternatives is a key element of the assessment^[29]. Since the authority taking the decision takes into account the results of the environmental assessment, it should be assumed that the authority has no legal basis for setting requirements for the investment resulting from the need to protect the environment, unless they are covered by these results. Consequently, the authority's discretion is limited, inter alia, by the results of the environmental assessment, the assessment of which must be included in the justification of the decision. However, given the scope of the results of the environmental assessment, it must be acknowledged that the authority has a significant degree of discretion in balancing the results of the assessment. Therefore, bearing in mind that the permit has an impact on fundamental rights, it is essential that any restriction on the project be firmly rooted in the results of the environmental assessment, which in turn should be reflected in a well-supported statement of reasons for the decision.

It can therefore be concluded that the purpose of the assessment institution is not to prioritize environmental considerations.

Thus, the measure of the effectiveness of the assessment is not so much to determine to what extent environmental considerations have prevailed over other considerations, but rather to determine whether they have been comprehensively and fairly considered at each stage of the decision-making process^[30].

Indeed, the authority is supposed to state the main reasons on which it based its decision. Therefore, it does not have to justify – by issuing a positive decision – that the investment will not adversely affect the environment. As pointed out, this also follows from the objectives of the Directive.

²⁹ Jendrośka, Bar, *Prawo ochrony środowiska – podręcznik*, 135.

³⁰ *Ibidem*, 143.

The carrying out of considerations means, therefore, weighing the reasons for or against the implementation of the investment. This balancing exercise can be carried out in two ways. Firstly, in the framework of the results of the environmental assessment, which in different aspects may lead to different conclusions. This may be the case in particular due to the broad scope of the subject of the environmental assessment. As in the case of the investment in question, it can be pointed out that a project that is beneficial from the point of view of climate protection may turn out to be detrimental to nature conservation, or at least require a strong conversion. This does not mean that the authority's role is solely to determine the expected degree of project harmfulness and establish requirements in the investment permit. To fulfill the objectives of the Directive, which include the preventive consideration of the environmental effects of the project and the preservation of the principles underlying the Directive, such as the principle of sustainable development, it is necessary to consider other reasons not covered by the subject of the assessment, including energy security. Consequently, in accordance with Article 9 of the Directive, the justification for development consent will include an analysis of the environmental aspects of the project covered by the assessment and other aspects relating to the implementation of the project, such as economic development needs.

The Directive does not set a minimum level for taking the results of the environmental assessment into account. The question therefore arises as to whether the provisions of the Directive allow for the possibility of refusing to grant a permit on the basis of the results of the environmental assessment. As is apparent from Article 8a(2) of the Directive, a refusal decision is also possible. Furthermore, the answer must be sought in the Directive's formula for taking the results into account. Indeed, considerations pursuant to Article 8 of the Directive may lead to the conclusion that the implementation of the investment should not take place. It should be emphasized, however, that the results of the environmental assessment do not determine the decision in any direction, they are to serve as material for consideration. Therefore, negative results of the environmental assessment do not automatically result in the refusal to issue a permit.

In view of the above, it must be concluded that the issuing of a ruling taking into account the results of the environmental assessment in terms of the Directive refers to the so-called argumentative model of law application. This model is typical of the anti-positivist understanding of the law. It is a common assumption for anti-positivist orientations that

the application of the law consists primarily in making argumentatively justified choices between different decision alternatives, whether because of the need to find a decision that could count on the widest possible acceptance in the light of socially accepted values (...), whether because of the need to find the optimum decision in view of the projected empirical effects of the various decision alternatives (...), or in view of any other criteria. (...) At the same time, it can be thought that as the complexity of social systems and the associated unpredictability of the processes taking place in them increases, the alternative nature of decision-making procedures will also deepen^[31].

In the above respect, the position of the Polish judicial-administrative jurisprudence cannot be overlooked. In the judgments of the Supreme Administrative Court it was pointed out that the principle of sustainable development plays above all the role of an interpretation directive. When doubts arise as to the scope of obligations, the type of w and the manner of their implementation, the principle of sustainable development should be used by authorities applying the law. In this case, the principle becomes a material legal basis for determining the environmental conditions for the implementation of the project. Sometimes the factual situation requires weighing and balancing more favourable solutions applying the principle of sustainable development. Demonstration of the failure to respect the principle of sustainable development by the authority applying the law in the case for the determination of environmental conditions may consequently constitute grounds for questioning the legality of its action^[32]. This is also justified in the case of the selection of project variants^[33]. The principle of sustainable development must be applied in relation to the evidence gathered in the case, particularly the environmental impact report. It is important to note that this principle encompasses not only the protection of nature, but also the concern for social and civil development, which is connected to the necessity of building appropriate infrastructure^[34].

³¹ Lech Morawski, *Główne problemy współczesnej filozofii prawa* (Warszawa: Wydawnictwo Prawnicze PWN, 2000), 155.

³² So in the NSA judgment of 2.04.2015, II OSK 2123/13, LEX no. 2089921; similarly in the NSA judgment of 17.01.2024, III OSK 309/22, LEX no. 3693335.

³³ See judgments of the NSA of 15.12.2022, III OSK 1747/21, LEX no. 3558984 and of 21 February 2015, ref. II OSK 1472/15.

³⁴ Cf. judgement of the Supreme Administrative Court of 26.10.2011, II OSK 1820/11, LEX No. 1152061 and judgement of the Constitutional Tribunal of 6.06.2006, K 23/05, OTK-A 2006, No. 6, item 62.

The argumentative model, like the syllogistic conception of the application of law, presupposes the making of a single accurate decision. Despite the significant discretionary nature of the decision, it does not entail the conferral of competence to make different (alternative) decisions. This model enables the body applying the law to make the most appropriate decision in a given case.

This pattern of decision-making must be seen in the context of the issue of changing functions of legislation and administration^[35]. One of the reasons for this phenomenon is the loss of the directing power of the law and the associated shift away from the scheme of subsumption^[36].

Due to the complexity of living conditions in many substantive scopes, it is not possible to put the program of the law in such a way that a model of its implementation, based on a simple structure, is realistic. Not defined legal terms and discretion are buzzwords, signaling the creative competence of the authorities to concretize the law^[37].

For the argumentative model of the application of the law, therefore, the possibility of direct application of legal principles plays a huge role, as discussed below.

The argumentative model of applying the law also has an important political advantage, which may prove particularly important in the case of often highly controversial investment projects affecting the environment.

In democratic societies, state decisions must not be presented as unilateral and authoritative acts of a superior authority to which citizens are obliged to obey. Instead, they should be presented as the result of a public and open process of exchange of arguments. In this process, the decision-maker is obliged to take a position on the rationale presented by all parties, and the parties have the right to be informed why their rationale has not been recognized^[38].

³⁵ Friedrich Schoch, „The place of the administration in the structure of the division of powers under the current tasks of the administration”, [in:] *Ius publicum im Umbruch. Referate und Diskussionsbeiträge des XI. Deutsch-Polnischen Verwaltungskolloquiums vom 22.-25. September 1999 in Jena*, ed. Harmut Bauer, Reinhard Hendler, Peter M. Huber, Bożena Popowska, Teresa Rabska, Marek Szewczyk (Boorberg: Uniwersytet Michigan, 2000), 134.

³⁶ Ibidem, 134.

³⁷ Ibidem, 135 and the literature indicated there.

³⁸ Morawski, *Główne problemy współczesnej filozofii prawa*, 162.

In this context, it is essential to underscore the comprehensive public consultation process that emerges from the provisions of the Directive and the requirement to substantiate the decision by referencing that consultation.

One has to agree with the view that the argumentative model of law application is useful for solving complicated cases, where complex facts and collision of various protected values are involved. On the other hand, in simpler cases, the advantages of the syllogistic model, such as the certainty in the application of law, i.e., the greater predictability of the ruling, the simpler verification of the ruling, and the speed^[39] seem to be more important.

In this context, the environmental assessment under Directive 2011/92/EU appears as a flexible instrument, ensuring the possibility of full verification of each project. The above is of great importance in the conditions of rapid technological progress and new emerging environmental threats. However, it should be noted that the consideration formula – like any solution – also has certain disadvantages. From the point of view of the investor's interests, its disadvantage lies in the fact that it does not specify the framework of the decision. This means that the investor cannot design the investment in advance, adapting it to the requirements of the applicable law and thus guarantee himself a positive decision on the permit. Such a solution introduces a large element of uncertainty into the system of preventive investment verification. On the other hand, it should be noted that not defining material requirements also opens up possibilities. After all, it is not ruled out that an investment that would not meet rigidly defined material requirements would be allowed under consideration. Furthermore, the investor has the opportunity to present innovative, unconventional solutions, the assessment of which is not fettered by the content of the applicable material requirements. It should be added that the Directive makes the investor a co-participant in the decision-making process, if only through the obligation to provide a report, provides procedural guarantees and ensures full transparency of the procedure. Moreover, as already indicated, it should be conducted at the earliest possible stage.

The decision-making process, informed by the environmental assessment of a project based on a model of law application, represents a departure from formalism. In the process of making this decision, it is necessary to apply above all the principle of sustainable development.

³⁹ Ibidem, 162.

6 | Summary

The environmental aspects of the construction and operation of a nuclear power plant in the Choczewo commune area were thoroughly analyzed by the General Director of Environmental Protection, leading to the issuance of an environmental decision in this case. Choczewo, a coastal tourist commune surrounded by several protected natural areas, has raised public concerns about the project's location. However, as presented in the proceedings for the issuance of the aforementioned decision, the investment in question was selectively chosen by the relevant public administration bodies, which was preceded by many years of research, taking into account various assessment factors.

The applicants and the environmental authority sought to demonstrate, and even to assure the public and the consulting states, that there would be no significant environmental impact of the planned nuclear power plant, and that measures to minimize such impact would be taken of an appropriately specialized nature depending on the area in which the nuclear power plant would be interfering. Moreover, the explanations at the environmental stage concerning strategic decisions of the Polish state regarding energy policy directions seem to be of interest, as they go beyond the scope of the proceedings discussed in this paper. However, they are certainly relevant from a political and sociological perspective, given the global nature of the project, as indicated by the need for cross-border consultations. The Polish authorities duly processed these consultations, resulting in the signing of the relevant protocols required by the international agreements binding Poland.

At the same time, the duration of the proceedings in the case from the application for the issuance of environmental decision was extensive, as the date of the decision is September 19, 2023, while Polskie Elektroenergetyczne Spółdzielni Energetyczne submitted the application for its issuance on August 5, 2015. However, given the extensive environmental analyses, the applicant submitted additional letters.

The decision is not final. It is possible that the decision at second instance will change the environmental conditions for the implementation of the power plant, but we do not expect a negative decision. The key is to demonstrate that the decision is the right one. In a project of this complexity, it is not possible to do so by referring to the substantive legal prerequisites of the law. The principle of sustainable development (Article 5 of the Constitution of the Republic of Poland) is of key importance. Its observance

and implementation is made possible by the argumentative model of law application, which is based on taking into account the environmental conditions of the project.

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