

Annex 2  
to the Agenda for the transfer of  
documentation for the provision of an  
opinion on the environmental impact  
assessment and financial

Date:

(the date of official publication in the Unified Register for Environmental Impact Assessment (automatically generated by software for maintaining the Unified Register for Environmental Impact Assessment is not specified by the business entity)

Registration number 10240

(registration number of the environmental impact assessment case of the planned activity (automatically generated by the software for maintaining the Unified Register of Environmental Impact Assessment, for the paper version it is indicated by the business entity)

## Message

### about the planned activity, which is subject to environmental impact assessment

JOINT STOCK COMPANY «NATIONAL NUCLEAR ENERGY GENERATING COMPANY «ENERGOATOM» 24584661

(the full name of the legal entity, the code according to EDRPOU or the surname, name and patronymic of an individual - entrepreneur, identification code or series and passport number (for individuals who, due to their religious beliefs, refuse to accept the registration number of the taxpayer's registration card and have officially reported this to the relevant supervisory authority and have a mark in their passport)

informs about the intention to carry out the planned activity and the assessment of its impact on the environment.

1. Entity

Nazarivska str, Kyiv, 01032, Ukraine, tel.: +38(044) 277-78-83, e-mail: energoatom@atom.gov.ua,

(location of a legal entity or place of business of an individual entrepreneur (postal code, address), contact phone number)

2. Planned activity, its characteristics, technical alternatives.

Planned activity, its characteristic.

The planned activities represent construction and commissioning at affiliate SS "South-Ukraine NPP" site of Power Unit No. 4 with AP 1000 reactor, with the design capacity of 1.1 GWt, of Westinghouse Electric Company LLC (USA) manufacture. The AP 1000 facility is a state-of-the-art Pressurized Water Reactor (PWR) of modular design with enhanced passive safety systems, advanced protection and control systems, and the ability to operate in load follow mode. AP 1000 is the first Generation III+ reactor certified by the U.S. Nuclear Regulatory Commission (NRC).

Technical alternative 1.

Construction and commissioning of Power Unit No.4 with AP 1000 reactor facility of Westinghouse Electric Company manufacture at affiliate SS «South-Ukraine NPP» site.

Technical alternative 2.

This technical alternative is not being considered.

3. The place of planned activity, territorial alternatives.

The place of planned activity

Mykolaiv region, Voznesensk district, Pivdennoukrainsk

3.1 Territorial communities impact

Mykolaiv, Odessa, Vinnitsa, Kirovograd, Cherkasy, Kherson, Dnipro.

The place of planned activity, territorial alternative 1.

Mykolaiv region, Voznesensk district, Pivdennoukrainsk

New construction and commissioning at the existing affiliate «SS «South-Ukraine NPP» site of Power Unit No.4 with a two-circuit pressurized water reactor AP 1000 manufactured by Westinghouse company, with a design electric capacity of 1.1 GW.

The place of planned activity, territorial alternative 2.

Rivne region, Varash district, Varash

New construction and commissioning at the existing affiliate SS «Rivne NPP» site of Power Unit No.4 with a two-circuit pressurized water reactor AP 1000 manufactured by Westinghouse Electric company, with a design electric capacity of 1.1 GW (Rivne region, Varash district, Varash).

4. Socio-economic impact of the planned activity

The social and economic justification for the planned activities is strengthening of energy independence of the State and providing electricity to households and industry. The project implementation is of the nation level importance; it foresees involvement of large numbers of local contractor organizations, thus ensuring creation of new workplaces, loading production facilities as well as economic development of the country. In the process of the activity implementation, up to 10 percent of the power unit construction cost is planned to be allocated to social development of the region.

5. General technical characteristics, including the parameters of the planned activity (power, length, area, volume of production, etc.)

Construction at affiliate «SS «South-Ukraine NPP» site of Power Unit No.4 with the design electric capacity of 1100 MW and thermal capacity of 3400 MW. It is planned to use Generation III+ AP1000 type reactor facility with passive safety systems licensed by the US Nuclear Regulatory Commission. The AP1000 facility is a two-circuit pressurized water reactor (PWR). Its design lifetime is 60 years. The design site of Power Unit No.4 at affiliate «SS «South-Ukraine NPP» site covers 58 hectares with the construction area equal 160 000 m<sup>2</sup>.

6. Environmental and other limitations of the planned activity according to the alternatives:

Regarding technical alternative 1

Compliance with the environmental, sanitary and hygienic, fire protection, urban planning and territorial constraints for the planned activities shall be in accordance with applicable normative documents. Environmental constraints: during the object operation: compliance with the applicable environmental legislation; regarding radiation impact: compliance with NRBU-97 requirements and applicable radiation area regulations; regarding atmospheric air: ensuring compliance with maximum permissible contaminant concentrations in atmospheric air of populated cities; regarding water environment: compliance with and observing the size of coastal protection bands, norms for discharge of contaminants and compliance with maximum permissible contaminant concentrations; regarding acoustic impact: ensuring compliance with permissible noise levels; regarding soils and groundwater: their protection against contamination by untreated drain water and waste; regarding waste management: compliance with the requirements of the Law of Ukraine "On Waste Management", ensuring disposition of waste in the environment in an ecologically safe way, transferring waste for treatment to specialized companies that have corresponding permitting documentation; satisfying the requirements for rational use of natural resources. Sanitary and hygienic constraints: the object shall be operated in compliance with the applicable sanitary and hygienic norms and rules; compliance with the requirements for arrangement of the sanitary protection area shall be in compliance with the State Sanitary Rules for Planning and Development of Settlements (DSP 173-96); compliance with the permissible acoustic (noise) pollution shall be in compliance with the requirements of DBN V.1.1-31:2013 "Protection of Territories, Buildings and Structures from Noise". Other constraints: compliance with fire safety rules; constraints of urban planning nature established on the basis of DBN B.2.2-12:2019 "Planning and Development of Territories".

Regarding technical alternative 2

This technical alternative is not being considered.

Regarding territorial alternative 1

Environmental and other constraints for the planned activity shall be established in compliance with the legislation of Ukraine, with observing of norms for maximum permissible levels of anthropogenic load on the environment, sanitary norms, radiation specifications etc. Territory constraints are determined by urban planning, engineering, transport and industrial infrastructure ("buildings") that exists on the planned activity site and in the vicinity of it. Use of land areas within the land plot allocated for use shall comply with requirements of the applicable law. Additional alienation of land is not planned.

Regarding territorial alternative 2

Similar to technical alternative 1.

7. Ecological and engineering preparation and protection of the territory according to alternatives are necessary:

Regarding technical alternative 1

Due to the fact that construction is planned within the existing NPP industrial site, there is no need for environmental and engineering preparation and protection of the territory.

Regarding technical alternative 2

This technical alternative is not being considered.

Regarding territorial alternative 1

Since construction of Power Unit No.4 is to take place at the industrial site of an existing NPP

urban planning constraints are absent. The design is to utilize the defense-in-depth system that ensures functioning of safety-important systems, in particular, of nuclear and radiation safety systems. Power unit construction shall be in compliance with the requirements of environmental legislation. In order to minimize harmful impact on the environment, organizational as well as engineering and technical solutions will be foreseen regarding a complex of protection, restoration, security, compensation and resource-saving measures that guarantee proper levels of environmental safety during construction works: - measures to preserve natural resources (conservation and rational use of land, water, energy, fuel resources, reuse of resources); - architectural, construction and planning solutions; - measures to minimize ionizing radiation impact on the environment; - measures to minimize non-radiation impact on the environment; - measures to minimize waste generation; - environmental monitoring systems: - radiation monitoring system at the NPP site, within the sanitary protection area and monitoring area; air monitoring system; surface and groundwater monitoring system; geological processes and soil condition monitoring system; monitoring system for conditions of the foundations of buildings and structures at the NPP site.

Regarding territorial alternative 2

Similar to technical alternative 1.

8. Scope, sources and types of possible impact on the environment:

Regarding technical alternative 1

Impact on regional climatic conditions is not predicted. Impact on the local climate and air environment is expected due to localized increase in air temperature and spread of water vapor during operation of cooling towers. Ionizing radiation impact is not to change on condition of compliance with the design requirements for power unit operation safety. Spreading of releases of contaminants that exceed the permissible limiting levels beyond the industrial site boundaries is not expected. Impact on the aquatic environment of Southern Bug River and other natural water bodies, additional to the existing impact, is not expected. Increase in irreversible water losses is expected due to evaporation from the Tashlyk technological reservoir, which may lead to increase in the saltiness of the reservoir. Additional impact on the geological environment, natural relief, soils, flora and fauna is not predicted. Nature reserve sites, historical and cultural heritage sites and territories are absent in the area of potential activity impact; no greenery felling is planned. Negative impacts on social environment are not planned; positive impact on the State economy is expected due to increased power generation at affiliate «SS «South-Ukraine NPP». Impact on health and living conditions of public will not change compared to the existing current level.

Regarding technical alternative 2

This technical alternative is not being considered.

Regarding territorial alternative 1

Possible environmental impact scope, its sources and types in the area of the planned activity: - at affiliate «SS SUNPP» site and in the sanitary protected area: - physical (ionizing radiation) impacts; - atmospheric air; - water resources (underground, surface); - climate and microclimate; - geological environment; - land resources, soils; - flora and fauna; - objects of the nature reserve fund.

Regarding territorial alternative 2

Similar to technical alternative 1.

9. Belonging to the first or second category of activities and objects that may have a significant impact on the environment and are subject to environmental impact assessment (indicate the relevant point and part of Article 3 of the Law of Ukraine "On Environmental Impact Assessment")

## First category

2 Thermal power stations Thermal power stations (TPP, CHP) and other installations for production of electricity, vapour and hot water with a heat output of 50 megawatts or more using organic fuel, nuclear power stations and other nuclear reactors including the construction, decommissioning of such power stations or reactors (except research installations for the production and conversion of nuclear fuel and raw materials for producing secondary nuclear fuel, fissionable and fertile materials whose maximum power does not exceed 1 kilowatt continuous thermal load);

10. The existence of grounds for carrying out an assessment of the transboundary impact on the environment (including the presence of a significant negative transboundary impact on the environment and a list of states whose environment may be subject to a significant negative transboundary impact (affected states)

Neighboring countries environment of which may potentially be adversely affected by transboundary impacts: Poland, Slovakia, Romania, Hungary, Moldova. Of all the transboundary impact types, ionizing radiation impact is the most significant. Under normal conditions of construction and operation, radiation impact on population and environment of the neighboring countries is predicted to be negligible compared to the background level. During environmental impact assessment procedure, assessments of consequences of transboundary transfer of radionuclides for the maximum design basis accident and beyond-design basis accidents shall be performed.

11. The planned scope of research and the level of detail of information to be included in the environmental impact assessment report

Planned research scope and the level of information details for the information to be included in the report on environmental impact assessment are determined by Article 6 of the Law of Ukraine "On Environmental Impact Assessment" No. 2059-USh dated May 23, 2017.

12. Environmental impact assessment procedure and opportunities for public participation in it

The activity planned by the business entity may have a significant impact on the environment and, therefore, is subject to an environmental impact assessment in accordance with the Law of Ukraine "On Environmental Impact Assessment".

Environmental impact assessment is a procedure that involves:

preparation of an environmental impact assessment report by the business entity;

public discussion of the planned activity;

analysis by the authorized authority of the environmental impact assessment report, any additional information provided by the business entity, as well as information received from the public during public discussion, during the transboundary impact assessment procedure, other information;

provision by the authorized authority of a reasoned conclusion on the assessment of the impact on the environment, which takes into account the results of the analysis provided for in the fifth paragraph of this clause;

taking into account the conclusion of the environmental impact assessment in the decision on the implementation of the planned activity, specified in paragraph 14 of this notice.

In the conclusion on the assessment of the impact on the environment, the authorized authority, based on the assessment of the impact on the environment of the planned activity, determines the permissibility or justifies the inadmissibility of the implementation of the planned activity and

determines the environmental conditions of its implementation.

It is forbidden to start the implementation of the planned activity without assessing the impact on the environment and obtaining a decision on the implementation of the planned activity.

The environmental impact assessment procedure provides for the right and opportunities of the public to participate in such a procedure, in particular at the stage of discussion of the scope of research and the level of detail of information to be included in the environmental impact assessment report, as well as at the stage of consideration by the authorized authority of the submitted by the business entity environmental impact assessment report.

At the stage of public discussion of the environmental impact assessment report for at least 25 working days, the public is given the opportunity to submit any comments and suggestions to the environmental impact assessment report and the planned activity, as well as to participate in public hearings. More details about the procedure for public discussion of the environmental impact assessment report will be announced in the announcement of the start of public discussion.

Temporarily, for the period of validity and within the territory of the quarantine established by the Cabinet of Ministers of Ukraine in order to prevent the spread of acute respiratory disease (COVID-19) caused by the SARS-CoV-2 coronavirus on the territory of Ukraine, until its complete cancellation and within 30 days from the date of cancellation quarantine, public hearings are not held and are not scheduled for dates falling within this period, as stated in the announcement of the start of public discussion of the environmental impact assessment report.

13. Public discussion of the scope of research and the level of detail of information to be included in the environmental impact assessment report

Within 20 working days from the date of publication of this notice on the official website of the authorized authority, the public has the right to provide the authorized authority specified in paragraph 15 of this notice with comments and suggestions on the planned activity, the scope of research and the level of detail of information to be included in the report with environmental impact assessments.

When submitting such comments and suggestions, indicate the registration number of the environmental impact assessment case of the planned activity in the Unified Environmental Impact Assessment Register (listed on the first page of this notice). This will greatly simplify the process of registration and consideration of your comments and suggestions.

If such public comments and suggestions are received, they will be placed in the Unified Register of Environmental Impact Assessment and transferred to the business entity (within three working days from the day of their receipt). Persons providing comments and suggestions certify their consent to the processing of their personal data with their signature. During the preparation of the environmental impact assessment report, the business entity is obliged to fully take into account, partially take into account or reasonably reject the comments and suggestions of the public, provided in the process of public discussion of the scope of research and the level of detail of information to be included in the environmental impact assessment report the environment Detailed information on this is included in the environmental impact assessment report.

14. Decision on implementation of the planned activity

In accordance with the legislation, the decision on the implementation of this planned activity will be

(type of decision in accordance with the first part of Article 11 of the Law of Ukraine "On Environmental Impact Assessment")

which appears Supreme Council of Ukraine

(authority whose powers include making such a decision)

15. All comments and suggestions from the public regarding the planned activity, the scope of research and the level of detail of information to be included in the environmental impact assessment report must be sent to

Ministry of Environmental Protection and Natural Resources of Ukraine, 03035, м. Київ, вул. Митрополита Василя Липківського, 35., OVD@mepр.gov.ua., (044) 206-31-40, (044) 206-31-50, Олена Грицак (Olena Hrytsak), Deputy Director of the Environmental Assessment Department, Head of the Environmental Impact Assessment Division

(name of the authorized authority, postal address, e-mail address, telephone number and contact person)

*{Appendix 2 with changes introduced in accordance with Resolution of the CM No. 824 dated 09/14/2020}*