

Translation from Bulgarian

**REPUBLIC OF BULGARIA**  
**MINISTRY OF ENVIRONMENT AND WATER**  
**DECISION № 6 - PR/2014**  
**to assess the need of environmental impact assessment**

On the basis of Article 93, paragraph 2, 4, and 5 of the Environmental Protection Act (EPA), Article 7, paragraph 1 and Article 8, paragraph 1 of the *Ordinance on the terms and conditions for environmental impact assessment* (EIA Ordinance), Article 31, paragraph 4 and paragraph 6 of the Biodiversity Act, Article 40, paragraph 4 of the *Ordinance on the conditions and procedures for assessing the compatibility of plans, programs, projects and investment proposals with the object and purpose of conserving protected areas* (Ordinance on Conformity Assessment (CA)) and written documentation submitted by the developer in Appendix № 2 to Article 6 of the EIA Ordinance and Article 10, paragraph 1 and 2 of the Ordinance on the CA, and received from the Ministry of Health, Basin Directorate of Water Management, Danube Region - Pleven, the Nuclear Regulatory Agency and the Executive Environment Agency

**DECIDED**

**not to assess** the environmental impact of investment project "Extension of operation of the fifth and sixth units of NPP" Kozloduy", which **is unlikely to have** a significant negative impact on natural habitats, populations and habitats species subject to conservation in protected areas

**Assignor:** "NPP Kozloduy" 3321 Kozloduy;

**Brief description of investment proposal:**

Aim of the project is to ensure conditions for lifetime extension of the fifth and sixth of NPP "Kozloduy". Therefore the deadlines need to be justified and the necessary measures to ensure the lifetime of structures, systems and components (SSCs) until the current operating licenses and in perspective for long-term operation for another 20 years should be implemented. The realization of the investment plan does not provide constructive amendments to the reactor. The use of this technology to produce electricity from nuclear power reactors type water- water, shall continue and for this purpose the capacity of existing infrastructure of NPP "Kozloduy" and the highly qualified staff of the company shall be used.

The prerequisites for an extension of the operation of units fifth and sixth of NPP "Kozloduy" are:

- reliable operation of the power units for the past period of operation;
- performed and planned implementation volumes of activities increase the level of safety and reliability;
- positive experience in continuing the operation of the reactor units of a particular type in the world;

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16



- economic feasibility of continuing the service life;
- positive preliminary forecast of the remaining lifetime of the key elements of

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16





fifth and sixth units of NPP "Kozloduy", from results of complex inspection and condition assessment of remaining lifetime of the SSC of Unit 5 of the NPP Kozloduy;

In connection with the implementation of the investment plan, planned activities of NPP "Kozloduy" extending the period of operation of the fifth and sixth unit are designed in two stages:

**First stage:** Complex assessment of the actual state of the facilities of the respective unit to:

- development of a set of organizational, technical and methodological activities to extend the service life of the fifth and sixth unit, ensuring the compliance with current regulatory and technical requirements for NPPs in operation;
- justification of the terms and the necessary measures to ensure the SSC lifetime to the expiration of the current license in 2017 - for the fifth unit, respectively, in 2019 - for the sixth unit, the outlook for long-term operation for the next 20 years each of the units.

**Second stage:** Implementation of the program to prepare the units for extension of operation:

- Program for preparing the units for extension of operation is a condition of the license of the fifth and sixth unit and it is developed after the inspection of complex factual situation and assessment of residual resource.
- After agreeing the program by the Nuclear Regulatory Agency (NRA), its implementation starts with deadline in 2016 - for the fifth unit and 2018 - for the sixth unit. In implementing the program replacement of designated major components is envisaged. This is related to the implementation of supplies and services provided in the legislation operation with relevant financial and time resources.

After the implementation of the preparation program for the extension of the operation of the fifth and sixth unit and before applying for a new license the following additional actions are planned to be made:

- conducting extended Periodic Safety Review in relation to the re-licensing of the fifth and sixth unit;
- prepare and submit to the NRA a report with safety analysis, confirming the possibility of working in justified period;
- preparation of documentation for re-licensing;
- application for renewal of the operating license of the fifth and sixth unit;
- re-licensing of the fifth and sixth unit.

Investment proposal (IP) is a modification and extension of the site in Annex № 1 of the EPA, which is why according to Article 93, paragraph 1, item 3 of the EPA subject to the procedure for the assessment of the need for an EIA.

The property subject to the investment proposal does not **fall within** the boundaries of protected areas under the Protected Areas Act, and within the protected areas of the Natura 2000 network within the meaning of the Biological Diversity Act. The nearest protected areas are BG0002009 "Zlatiyata" for the conservation of wild birds declared by Order № 548/05.09.2008 of the Minister of Environment and Water (SG 83/2008) and protected areas BG0000533 "Kozloduy Islands" BG000614 "Ogosta river" and BG0000508 "Skat river" for the conservation of natural habitats and of wild fauna and flora included in the list of protected areas adopted by Decision № 122/2007, the Council of Ministers (SG 21/2007).

After review of the documentation and pursuant to Article 40, paragraph 3 of the Ordinance on the CA, based on the criteria in Article 16 thereof, has been evaluated for the probable extent of

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16



negative impact, according to which the investment proposal for lifetime extension of fifth and sixth of NPP "Kozloduy ", **is unlikely to have** a significant negative impact on natural habitats and habitats of species subject to protection in the very near lying protected areas.

## REASONS:

### **I. Features of the proposed construction, activities and technologies: volume, performance, scalability, interoperability, and cumulating with other offers, use of natural resources generated waste, pollution and environmental discomfort and the risk of accidents**

1. Planned activities of NPP "Kozloduy" on realization of the project are designed in two stages. The first is a complete survey of the actual condition of the facilities of the respective unit to develop a set of organizational, technical and methodological activities to extend the useful life of fifth and sixth unit.

The results of complex inspection (analysis of the documentation of the history of the exploitation of the mechanisms of aging, defects and failures, set up system for technical maintenance and repair/TMR/water chemistry regime/WCR/visual inspection) allow the conclusion that this that the technical condition of SSCs systems, building structures, buildings and facilities meet the requirements of the NPP "Kozloduy" operating, designing and legal documentation.

The follow up of the implementation of the IP is the implementation of the program for the preparation of units extension of the operation. Program for preparing the units extension of operation (UEO) is made after the complex investigation of the actual situation and resource assessment of structures, systems and components (SSCs) power units. Depending on the nature of the tasks envisaged, 280 activities are planned, grouped as follows:

- replacement of SSCs;
- modernization or reconstruction of the SSC;
- conduct further analysis and quantification of residual resource;
- activities within the maintenance and repair;
- resource management features by changing the mode of operation during the UEO.

2. The implementation of the investment plan is **not** related to carrying out construction activities or additional interventions in the natural surroundings and landscape. No change of road infrastructure is envisaged.

3. Implementation of the project is not connected with the use of natural resources in volumes larger than those used to date. In extended life of Units 5 and 6 increasing the quantity of the used water for industrial needs is not expected. Building of new facilities for water use or discharge is not envisaged. No cooling, industrial and domestic water in quantities larger than permitted for NPP "Kozloduy" shall be used in accordance with the Water Act.

4. In the implementation of program activities the following types of waste are expected to be generated:

- waste disposed of in landfills for non-hazardous waste - construction waste not containing hazardous substances;
- widespread recoverable waste - metal, plastic and glass packaging;
- waste substances and mixtures - greases and lubricants;

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phone: (02) 940 63 91, fax: (+3592) 988 53 16





- scrapped and/or dismantled equipment - ferrous and non-ferrous metals, plastics, waste electrical and electronic equipment (EEE) and components of EEE, filings and turnings of ferrous and non-ferrous metals.

The company has the necessary facilities, equipment for their management and personnel for the realization of the objectives and environmental policies.

5. In continuation of the life of Units 5 and 6 of NPP "Kozloduy" no change of quantities of non-radioactive and radioactive (solid and liquid) waste, as well as gaseous and liquid (non-radioactive and radioactive) emissions received to this time is expected.

6. Change in the main flow diagrams and processes, as well as increase the amount of nuclear fuel is not envisaged.

7. According to opinion ref. № 04-00-85/22.07.2014 of NRA units 5 and 6 of NPP "Kozloduy" have operating licenses pursuant to the Act on safe use of nuclear energy (ASUNE) respectively to 2017 and 2019. The operation of the nuclear facility after the initial design period is not a new or separate stage in its lifecycle. Continued operation of the fifth and sixth of NPP "Kozloduy" does not imply the development of new technical design or modification of existing one.

8. As a result of consultation under Article 7, paragraph 2. Item 4 of the Ordinance on EIA, the Executive Environment Agency (EEA) expressed opinion with ref. № 04-00-10639/22.07.2014 on the following:

8.1. Project will be implemented within the existing on NPP "Kozloduy" site nuclear units and is associated only with repairs to existing buildings. No change of current operating mode of the equipment shall be made, i.e. work technology and basic equipment of Units 5 and 6 remain unchanged. In this sense, no increasing of the territorial scope of the environmental impact is expected.

8.2. Radiation influence of the activity of NPP "Kozloduy" on the environment is subject to systematic studies of the commissioning of the plant so far. For the assessment of these impacts a departmental (by the plant) radiological monitoring of regulated long-term programs agreed with the control authorities in the country including also with the EEA is carried out. The survey includes all major components of the environment (air, water, soil and vegetation) as well as milk, fish, crops, etc., within a radius of 100 km around the plant.

8.3. EEA performed institution-independent radiological monitoring in the 30- km zone of observation of NPP "Kozloduy". The measured levels of technogenic activity are much below the permissible limits for the indicators in the various components of the environment and are generally typical for the region background values. The results are published in the periodicals on the EEA website. Long-time observations have not identified adverse trends in radiation environment and the ecological status of the environment arising from the operation of nuclear power.

8.4. Implement a program for radiological monitoring of the environment fully meet national and European regulations in the field, including Article 35 of the EUROATOM Contract, EU Recommendation 2000/473/EURATOM and 2004/2/EURATOM. Annual volume control for the past three years exceeds the corresponding volume in a number of similar laboratories of member states of the European Union.

8.5. At the present stage of development of nuclear power is recognized that nuclear power plants in operation are designed and built according to conservative standards that require a conservative approach to the operation of nuclear facilities. In strict compliance with all international and national standards and regulations for safety and security, the continued operation of the nuclear units should not lead to adverse effects on the population and environment in the area of the plant.

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16





9. According to opinion with ref. № 6194/04.11.2013, the Basin Directorate for Water Management "Danube Region" - Pleven, investment proposal is acceptable in terms of achieving environmental objectives and measures to achieve good water status in the river basin management plan (RBMP) of the Danube region. The implementation of IP will have no negative impact on water and aquatic ecosystems.

10. In the Declaration on activities related to the production of electricity from nuclear power plants (document № ECE/MP.EIA/20.Add.3 ECE/MP.EIA/SEA/4.Add.3) adopted at the sixth session of the Parties to the Convention on EIA in a transboundary context, it is stated that only the execution of events during the lifetime of the equipment, which can lead to emergence of a significant negative impact on the environment, subject to the Convention.

11. In implementing the IP pollution and discomfort to the environment are not expected.

## **II. Location, including the sensitivity of the environment, the existing land use, the relative availability of suitable areas, quality and regenerative capacity of natural resources in the region**

1. IP will be implemented within the current site of NPP "Kozloduy" nuclear power units, including using no water in quantities larger than permitted for NPP "Kozloduy" in accordance with the Water Act as well as no increase of the territorial scope and the degree of impact of the plant on the environment are implied.

2. Construction activities will be implemented only on the specified field and adjacent areas and will not affect neighbouring properties.

3. The investment proposal is not expected to alter the quality and regenerative capacity of natural resources in the area.

4. Continuation of the operation of the fifth and sixth of NPP "Kozloduy" is not an extension or modification of the project, which could lead to significant impacts on the environment, since the IP is not connected with the construction, alteration road infrastructure, modification of the quantities of water used and waste generated, according to opinion ref. № 26-A-85/19.032014 of the Ministry of Economy and Energy.

## **III. The ecosystem ability to assimilate in natural environment**

1. Investment proposal for the extension of the operation of the fifth and sixth units of NPP "Kozloduy" will be implemented on the existing company site, and will use the available infrastructure without providing of new construction and utilization of additional pitches. Industrial site and accompanying infrastructure are outside and far enough away from protected areas, so there is no probability of direct and/or indirect loss or disturbance of natural habitats, populations and habitats of species subject to protection in the closest protected areas.

2. Extension of the lifetime of the fifth and sixth unit is not expected to generate emissions and waste in the form and amounts that can lead to significant negative impacts on water, air or soil as key elements of the closest protected areas, given that it provides for increasing the amount of nuclear fuel and structural changes in the reactor and that the use of natural resources and waste will remain in the same volume quantities as in the operation of nuclear facilities until.

3. No significant change in the levels of noise and vibration generated on the industrial site compared to realize until such operation of the two units are expected, so that the IP will lead to no disturbance of the species subject to protection in the closest areas BG0002009 "Zlatiyata", BG0000533 "Kozloduy Islands" BG0000614 "Ogosta river" and BG0000508 "Skat river"

4. Implementation of planned activities in the IP are not expected to violate the integrity of the

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16





protected areas and affect their connectivity and in-between them and with other protected areas, leading to fragmentation and disruption of wildlife corridors links relevant to species subject to protection in the nearby areas.

5. IP is not expected to lead to cumulative impacts a significant effect on the species, including birds and their habitats under protection in adjacent areas as a result of the implementation of planned activities, compared to currently approved IP and other plans, programs and/or projects.

#### **IV. Characteristics of potential impacts - territorial scope, affected population, including transboundary impacts, nature, size, complexity, probability, duration, frequency and reversibility**

1. During and after the implementation of the IP no change in the aspects of impact of NPP "Kozloduy" on the environment and their quantitative dimensions is expected, so there will be no change and the degree of impact of nuclear power plant on environmental components. The results of the radiological environmental monitoring show that the registered levels of technogenic activity are much below the permissible limits for the indicators and objects.

2. Radiological monitoring carried out by NPP "Kozloduy", covers all major components of the environment (air, water, soil, vegetation, milk, fish, crops, etc.) within a radius of 100 km around the plant on the Bulgarian territory. Control parameters are regulated in a long-term program that is consistent with the control and supervisory authorities in the country - the NRA, the National Centre of Radiobiology and Radiation Protection (NCRRP) Ministry of Health (MoH) and the EEA at the Ministry of Environment and Water (MoEW). The program fully complies with national and European regulations in the field, including Article 35 of the EURATOM Contract, the EU Recommendation 2000/473/EURATOM and 2004/2/EURATOM. Detailed radiological monitoring is performed and objects of the industrial site of NPP "Kozloduy" - groundwater, aerosols, atmospheric deposition, soil, sediments and others.

3. Stress tests conducted in NPP "Kozloduy" in the period from July to October 2011, in the areas - earthquake, external flooding, extreme weather impacts, loss of power and ultimate heat sink and management of severe accidents show that the plant has a specially built purpose facilities, additional sources of emergency power and established procedures for action.

4. According to opinion ref. № 04-09-42/10.04.2014, the Ministry of Health considers that in health-hygienic point of view there is no reason to expect negative changes in radiative forcing and do not imply any risk to human health resulting from the implementation of investment proposal because:

4.1. No changes in basic equipment and technological schemes of the fifth and sixth of NPP "Kozloduy", as well as increasing the amounts of nuclear fuel are provided.

4.2. No changes in the working environment are expected, as well as amending the quantities of gaseous and liquid radioactive releases into the environment and radioactive waste received so far.

5. Republic of Bulgaria, according to Article 3 of the Convention on EIA in a transboundary context, has notified Romania as an affected country as alleged by letter dated 13.03.2014. In response, received on 21.03.2014, the Romanian side wishes to participate in transborder EIA procedure, supplemented by opinion ref.№ 26-00-2936/28.05.2014, containing comments on the project notification. In this regard, MoEW by letter ref. № 26-00-2936/05.06.2014 sent to Romania, the documentation and information on transborder procedure. In response to ref. № 1320/AK/14.07.2014, the Romania declares that it wishes to participate in the EIA procedure citing Decision VI/2, adopted at the sixth session of the Parties to the Convention on EIA in a Transboundary Context. Evidenced by the Report of the Sixth Session of the Parties (document ECE/MP.EIA/20/Add.I-ECE/MP.EIA/SEA/4.Add.I), Decision VI/2, paragraph B.68 concerns

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16





case of Ukraine. Given the adopted Declaration for activities related to the production of electricity from nuclear power plants approved by the parties in implementing the Convention (№ document ECE/MP.EIA/20.Add.3 ECE/MP.EIA/SEA/4.Add.3), the nature of this Decision for consideration discretion point A6 of the same document, which corresponds to consolidated understanding of the Parties to implement the Convention.

#### **V. Public interest in the proposal for construction, activities and technologies:**

1. According to the requirements of Article 4, paragraph 2 of the EIA Ordinance, the assignor has notified in writing of the project mayors of Kozloduy Harlets village and the affected population with letters ref.№№ 7460/14.10.2013 and 7451/14.10.2013.

2. According to the requirements of Article 6, paragraph 9 of the Ordinance on EIA, the assignor provided the information to assess the need for an EIA of the mayors of Kozloduy Municipality and Harlets village by letters ref. №№ 444/07.02.2014, and 443/07.02.2014.

3. Kozloduy Municipality, by letter ref. № 73.00-5/2/18.07.2014, has informed MoEW, that there were no comments, opinions and/or objections of the affected population on the project.

4. Mayoralty of Harlets village by letter ref. № 79/26.02.2014, has informed MoEW that there are no received comments and suggestions from citizens or organizations.

5. Information on IP is available on the website of the assignor since 02/10/2014

6. NPP "Kozloduy" by letter ref. № 26-00-2936/03.07.2014 has submitted to MoEW the information and evidence on the way of disclosure of the investment proposal, including discussion held in Kozloduy Municipality.

At the time of developing this decision MoEW has received statements by Mr. Petar Penchev, Mr. Peter Kyrdzhilov and "Greenpeace" -Bulgaria accounting the expectation of occurrence of significant negative impact on the environment and human health in the implementation of the investment proposal NPP "Kozloduy". In this reference position of the assignor is presented with № 2448/07.02.2014 on that motivates unfounded allegations in the opinions expressed, which is confirmed by the NRA and EEA letters №№ 04-00-85/22.07.2014 and 04-00-10639/07.22.2014 mentioned above.

#### **IF THE FOLLOWING CONDITION:**

1. In realization of the project the measures in programs 7.1.5, 7.1.6, 7.1.7 and 7.1.8 of RBMP of the Danube region should be complied with.

**This decision relates only to the specific proposal and stated in that capacity.**

**This decision on the "Extension of the operation of the fifth and sixth unit of NPP" Kozloduy" of NPP "Kozloduy " EAD - Kozloduy does not cancel the obligations of the assignor for the implementation of the Environmental Protection Act and other special laws and regulations and cannot serve as grounds for ending responsibility Regulatory.**

Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16





On the basis of Article 93 paragraph 6 of the EPA in case of change in the investment proposal, the assignor or of any of the circumstances under which it was issued this decision, the assignor/the new assignor must promptly inform MoEW, but not later than 14 days after the occurrence of the changes.

On the basis of Article 22, paragraph 3 of the Ordinance on the conditions and procedures for EIA, instructing the Director of BDWM "Danube Region" - Pleven to control over the implementation of the imposed requirement in this Decision.

Pursuant to Article 93, paragraph 7 of the EPA decision loses legal action if within five years from the date of issuance has not started implementation of the project.

The decision may be appealed to the Supreme Administrative Court within 14 days of its notification to interested parties under the Administrative Procedure Code.

Date: 25.07.2014

MINISTER:/signature, stamp/  
STANISLAV ANASTASOV

*I, the undersigned Silviya Nikolova Gelusheva hereby certify the authenticity of the translation from Bulgarian into English language of the present document.*  
Translator:



Sofia 1000, 22 Knyaginya Maria Luiza Boulevard  
phone: (02) 940 63 91, fax: (+3592) 988 53 16

