



ENVIRONMENTAL IMPACT ASSESSMENT REPORT

for Investment Proposal:

**BUILDING A NEW NUCLEAR UNIT OF THE LATEST
GENERATION AT THE KOZLODUY NPP SITE**

**CHAPTER 12: CONCLUSION OF THE TEAM AND TEAM LEADER PREPARING
THE ASSESSMENT**

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12. CONCLUSION OF THE TEAM AND TEAM LEADER PREPARING THE ASSESSMENT

The Environmental Impact Assessment Report outlines and assesses the impact of NNU on the environment and on human health.

The EIAR includes detailed analysis, estimates and assessment of the impacts on all components and factors of the environment and also covers the health and hygiene aspects during construction, operation and decommissioning of the **Investment Proposal for construction of a new nuclear unit of the latest generation at the Kozloduy NPP site.**

The Report was prepared in compliance with the requirements of the current legislation and regulations. Some specific measures have been proposed to reduce, prevent or fully eliminate the identified impacts on the environment and human health accounting also for the synergies of background gamma radiation.

The major EIAR conclusions are as follows:

During NNU construction

- ✓ The existing NPP “Kozloduy” infrastructure contributes to the safety of the staff during construction;
- ✓ Wastewater generated during construction will not deteriorate the quality of water in the Danube River;
- ✓ Subsurface layers will not be affected substantially by the implementation of the investment proposal;
- ✓ No impact is expected on the land use, mineral diversity, cultural heritage and protected natural areas;
- ✓ Deterioration of the landscape structure is negligible;
- ✓ No impact is expected on the biological diversity and on the areas inhabited by protected, significant and sensitive flora and fauna species;
- ✓ Noise and vibrations are restricted only within the territory of the NNU construction site and have no impact on the environment;
- ✓ No impact due to radiation factors related to the investment proposal during construction is expected as there are no significant, constant and non-regulated radioactive sources at that phase. The tools for non-destructive testing used in compliance with the safety measures shall not be considered as factor for radiation pollution of the working environment during construction of the new nuclear unit;

During NNU operation

- ✓ The existing NPP Kozloduy infrastructure and the extensive experience and expertise in the operation of the power plant contribute to the safety both of the population and of the staff in the NNU operation;
- ✓ The potential radiation impact on the staff operating NNU is expected to be within the limits of the design requirements laid down in the Investment Proposal;
- ✓ In non-radiation aspect, the NNU operation throughout its 60-year lifetime will not have negative impact on the population within the 30 and 100-kilometer zone around the power plant;
- ✓ The health risk for the closest residential area for all the four alternatives sites proposed is insignificant;
- ✓ The gaseous and aerosol releases will not have any significant impact on the health status of the population within the 30-kilometer zone around NPP Kozloduy;
- ✓ Gas emissions from internal combustion engines of the special vehicles and trucks in the NNU area will be negligible;
- ✓ Accounting for the provided quantity of drinking water for NPP Kozloduy and the available reserve in the plant consumption that will be used by NNU, the impact on the total water consumption of NPP Kozloduy will be insignificant;
- ✓ Faecal, industrial and spent cooling wastewater will not affect the ecological status of the water in the Danube River;
- ✓ Non-radiation impact on the environmental components and factors is not expected;
- ✓ Radiation impacts are not expected to occur on waters, land and soil, geological environment, subsoil, land use, mineral diversity, biological diversity, ecology and cultural resources; areas inhabited by protected, significant and sensitive flora and fauna species; scenic countryside; historic and cultural sites, sites protected by virtue of international or national law, or on the health of staff and population;
- ✓ No negative impact is expected from radioactive waste (RAW) if observing the decommissioning plans of the nuclear facility and all applicable Bulgarian and international legislative requirements and practices;
- ✓ The NNU contribution to the background gamma radiation in the area of the town of Kozloduy due to external radiation exposure is negligible even in cumulation with the existing nuclear facilities of the NPP Kozloduy site. The cumulative

impact on the environment in radiation aspect is qualified as insignificant; no cumulative impact in non-radiation aspect is expected;

- ✓ Transboundary impact is not expected.

During decommissioning:

- ✓ No negative impact is expected to ensue on the population beyond the 2-kilometer zone during NNU decommissioning;
- ✓ Non-radiation impact on the environmental components and factors is not expected;
- ✓ No radiation impacts are expected on waters, land and soil, geological environment, subsoil, land use, mineral diversity, biological diversity, ecology and cultural resources; areas inhabited by protected, significant and sensitive flora and fauna species; scenic countryside; historic and cultural sites, sites protected by virtue of international or national law, or on the health of staff and population;
- ✓ During decommissioning no cumulative impact due to non-radiation factors is expected;
- ✓ No negative impact is expected from RAW if observing the decommissioning plans of the nuclear facility and all applicable Bulgarian and international legislative requirements and practices;

Throughout all the three phases of implementation of the Investment Proposal: construction, operation and decommissioning, no transboundary impact has been identified for the Romanian territory within the 30-kilometer zone around NPP Kozloduy.

Based on the analysis and impact assessment on all environmental components and factors, including the protection of biodiversity, resulting from the implementation of the Investment Proposal *“Construction of a new nuclear unit of the latest generation at the Kozloduy NPP site”*, **the priority option for the construction of a new nuclear unit (NNU) is Site 2.** *As regards the choice of the type of reactor, a definite model cannot be identified since all the three technical solutions are feasible options for the implementation of the investment proposal.*

In consideration of the measures proposed by the experts, described in detail in Chapter 8 of the Environmental Impact Assessment Report, focused on observing the environmental quality standards and preventing any adverse effects on public and staff health, and in view of the conformity assessment of the Investment Proposal with the object and purpose of the conservation of protected areas, we hereby recommend to the High Expert Ecological Council of the Ministry of Environment and Water to approve the

implementation of the investment proposal for **Construction of a new nuclear unit of the latest generation at the Kozloduy NPP site on Site 2.**