



REPUBLIC OF BULGARIA
MINISTRY OF ENVIRONMENT AND WATER

99-00-99

16. September 2024

Subject: *Environment Impact Assessment Report for the project "Refurbishment of Unit 1 of Cherna Voda NPP and Expansion of Intermediate Dry Spent Fuel Storage with MACSTORE - 400 Modules"*

Dear Minister FECHET,

With reference to the Environmental Impact Assessment (EIA) report for the project "Refurbishment of Unit 1 of Cherna Voda NPP and Expansion of Intermediate Dry Storage for Spent Fuel with MACSTORE - 400 Modules", submitted to us by your letter No. DGEICPC/126152/05.08.2024, received on 6th August 2024 at the e-mail of the Bulgarian Focal Point for the Convention on EIA in a Transboundary Context, we would like to inform you of the following:

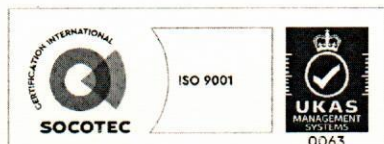
After a careful review of the submitted EIA report, we found that in general the information in the EIA report is in line with the recommendations that Bulgaria has made by letter No. OBOC-33 dated from 19 October 2022 to the scope and content of the impact assessment for the project. The requests of our country, mainly focusing on issues related to radiological risk and the protection of the population from the harmful effects of ionising radiation, as well as emergency planning and emergency preparedness, are reflected in the report.

H.E. Mr. Mircea FECHET

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The EIA report assess the environmental and human health impacts with regard to the potential impact on the Bulgarian population at all stages of the project implementation, both during regular operation and in emergencies. Appropriate precautionary measures are also foreseen.

The expected impact on the different environmental factors and components of the implementation of the project for "Chernaya Voda NPP Unit 1 Rehabilitation and Expansion of the Intermediate Dry Spent Fuel Storage Facility with MACSTORE - 400 Modules" is analysed, including in terms of population and human health. Environmental factors (air quality, groundwater and surface water, soil conditions, noise, ionising effects) are presented.

The project will be carried out without going beyond the already demarcated site of the Chernaya Voda NPP. In terms of radiological risk, doses have been assessed in an area of approximately 40 km around the plant (the distance from this site to the borders of the Republic of Bulgaria is approximately 36 km), and the results of the assessment show that the impact is expected to be negligible during regular operation. Possible accident events have also been considered, with a maximum estimated dose of 16 mSv/event. According to the EIA report, the regulated effective dose to a member of the public is 1 mSv/year. In the case of emergency exposure situations, "the reference level, expressed as residual dose to the population, is in the range 20 - 100 mSv for the first year after the accident".

Similar values related to emergency exposure situations are foreseen in the current Bulgarian Radiation Protection Ordinance (Art. 103 of the Ordinance). The similarity in the regulation is related to the fact that both in the Republic of Bulgaria and in Romania the requirements of Council Directive 2013/59/Euratom of 05.12.2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation have been implemented, i.e. these are standards that apply within the European Union as a whole.

With regard to the transboundary impact of the activities related to the investment proposal, the report indicates that, as a result of the environmental impact assessment, the transboundary impact on the environment and the population of Bulgaria is assessed as negligible in the range of 25-40 km.

Also, the operation of the upgraded units and the extension of the repository "has the same effects as under current regulated operation". In this sense, the expected emissions are similar to those of the current operation and will be within the limits set by the regulatory acts already issued by the Ministry of Environment, Water and Forestry and the National Commission for the Control of Nuclear Activities of Romania.



From this point of view, the report justifies the conclusion that 'no residual impacts on human health are expected from events with radiological consequences and accidents at the site as a result of the implementation of the project "Reconstruction of Unit 1 of the Cherna Voda NPP and expansion of the intermediate spent fuel storage with MACSTOR-400 type modules".'

The report draws the following conclusions:

- "No adverse impacts from physical factors such as noise, vibration, electromagnetic fields are expected from the implementation of the project due to the distance from the Cherna Voda NPP site of 36 km from the border with Bulgaria;*
- In a transboundary aspect, the construction and operation of the project will not have a significant radiological impact on the health of the Bulgarian population".*

On the basis of the information contained in the EIA report on the protection of human health from the effects of ionizing radiation, the competent institutions in Bulgaria have expressed the opinion that no need is expected to arise for modification of the emergency planning and emergency preparedness areas designated under the legislation in force in the Republic of Bulgaria, related to the extension of the lifetime of Unit 1 of Cherna Voda NPP and the extension of the intermediate storage facility for dry storage of spent fuel.

With regard to the protection of the environment and the minimisation of the likelihood of a transboundary health risk, we request that the administrative act to be issued by the competent Romanian environmental authorities for the project 'Rehabilitation of Unit 1 of the Cherna Voda NPP and extension of the intermediate dry storage of spent fuel with MACSTORE - 400 modules' include the following conditions as mandatory:

- 1. In order to protect the quality of surface waters, it should be taken into account that during construction and finishing works and during the subsequent operation of the project, accidents, incidents and/or technical problems may occur which may cause pollution of the Danube River. In view of this likelihood, an emergency plan for the prevention of pollution of process effluents, and hence of the Danube waters, including transboundary aspects, should be prepared during the design process.*
- 2. In view of the information presented in the EIA Report, and in particular section 5.2.10 (page 320), related to the risk of incidents with non-radioactive hazardous substances, to develop an Emergency Action Plan, including a transboundary aspect in terms of prevention of the population from the impact of toxic plumes of hydrazine and chlorine vapours.*
- 3. That the plans referred to in points 1 and 2 be made available to the Bulgarian authorities.*



In accordance with the provision of Article 6(2) of the Espoo Convention, we expect you to send us the EIA decision for the project "Repair of Unit 1 of Chernaya Voda NPP and Expansion of Intermediate Dry Spent Fuel Storage with MACSTORE - 400 Modules" in due time after its issuance.

In addition, in view of the requirements of Article 6(3) of the Espoo Convention, please inform us of any additional information on the significant transboundary impact of the project that was not previously available and could significantly affect the environment and health of the Bulgarian population.

We would also like the Republic of Bulgaria, as a neighbouring country of Romania, to be informed about future investment proposals and projects related to the Cherna Voda Nuclear Power Plant.

With this letter we would like to remind you to send us the EIA decision for the project "Construction of a facility for the removal of tritium from heavy water" on the territory of the Cherna Voda NPP, which we have requested by our letter No. OBOC-33 dated from 19 October 2022.

Please also inform us whether an EIA decision has been issued for the Neptune Deep project, and if one has been issued, on the basis of Article 6 of the Espoo Convention, we expect the decision to be sent to us as soon as possible.

Please accept, Mr. Minister, the expression of my highest consideration and readiness for successful future cooperation.

Yours sincerely,

Petar Dimitrov
Minister of Environment and Water