



GUVERNUL ROMÂNIEI
MINISTERUL MEDIULUI SI PĂDURILOR

Cabinet of the Minister

No.: 3672 /RP/ 18-10-2012

Ref: the project „*Construction of a new latest generation nuclear unit at Kozloduy NPP site*”

Dear Ms. Karadjova,

We have the pleasure to inform you that we have received both your address no. OBOC-220, dated 27.07.2012 and the notification attached, on paper and electronic format (CD), concerning the project „*Construction of a new latest generation nuclear unit at Kozloduy NPP site*”.

In response to the notification, we would like to inform you that Romania will participate in the transboundary environmental impact assessment procedure regarding this project.

The received notification has been translated in Romanian and disseminated to the Romanian competent authorities and public. The Romanian authorities have required that the EIA documentation must address the issues attached to the present letter (3 pages).

I am taking this opportunity to express our readiness to continue our fruitful cooperation and please accept, Ms. Minister, the assurance of my highest consideration and esteem.

Yours sincerely,

Rovana PLUMB
MINISTER

Ms. Nona KARADJOVA

Minister

Ministry of Environment and Water, Republic of Bulgaria



„ Building a next-generation nuclear unit at Kozloduy”

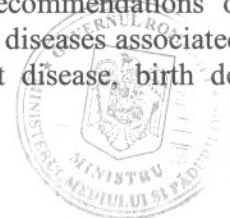
Considering the content of the Environmental Impact Assessment Report (EIA Report) that the Bulgarian party is required to develop as official document necessary to the analysis and environmental impact assessment processes in a trans-boundary context, the Romanian authorities consider as important the following nuclear safety and protection environment aspects that need to be treated with special care:

I. General requirements

1. We believe that the environmental impact report must also include:
 - Information on site characteristics that may have implications for nuclear safety
 - Information on accident analysis, including severe accident (especially probability and radiological consequences on Romanian territory). The source term in air and in Danube waters are required to be known, as well as, the appropriate dose for each accident scenario
 - Information regarding emissions in air and in the Danube during normal operation.
2. On both banks of the Danube sector comprised around Kozloduy city there are Nature 2000 sites and natural protected areas. On the Romanian bank there are the following Nature 2000 sites protected under the Habitats and Birds Directives, respectively:
 - ROSPA0010 Bistret river
 - ROSPA0023 Jiu river-Danube River Confluences
 - ROSCI0045 Corridor of Jiu river
 - ROSPA 00135 Sands from Dabuleni

It is mandatory to elaborate the appropriate assessment study of the natural capital in accordance with art.6.3.from the Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

3. The environmental impact assessment report must include issues related to:
 - a) Impact on flora and wild fauna on both sides of the Danube, in the project area, located inside and outside protected areas.
 - b) cumulative impact with other projects developed on the proposed site and its vicinity, which could harm the natural capital of two states
 - c) measures to mitigate the impact on biodiversity and the impact of residual data remaining after their application
4. We request that the name of the geographical localities on the maps to be in the Latin alphabet and the maps must contain the Romanian localities included in the assessment.
5. Taking into account that in the influence area (radius of 30 km around the NPP Kozloduy NPP on Romanian territory), there is a resident population of 77,197 inhabitants in 18 villages of the counties Dolj and Olt, we believe that the environmental impact study must contain an assessment of the radiological impact on human health.
6. We also request that the assessment on human health must evaluate the excess risk generated by normal operation and in case of accidents, as well, based on the recommendations of the International Commission on Radiological Protection (ICRP 103/2007), for diseases associated with exposure to ionizing radiation (incidence and mortality from malignant disease, birth defects,



developmental defects). These estimates should cover both the situations in which operations are normal and nuclear accident situations.

7. Taking into account levels of contamination of the elements of the environment (air emissions, groundwater, surface water) it is necessary to complete the impact study on health with a component on the synergistic effects of their action on the local population, both during the construction and the operation period.
8. In addition, the impact study on the population in the area of influence of Kozloduy NPP in Romania, will take into account the existence, on the same site, the old units 1-4 of the Kozloduy NPP that are under decommissioning and the future nuclear waste deposit. This means that we are requesting the cumulative health impact for the Romanian population living in the influence area.
9. It is necessary to calculate the cumulative excess risk that all these systems function it brings to human health.

II. Specific technical requirements

1. Presentation of the new technologies features applied to the nuclear unit at Kozloduy, against the new requirements to improve post-Fukushima nuclear safety and also the essential differences to current technologies that give the project title "*next generation*";
2. Presentation of the design and nuclear safety objectives that form and determine the conception and construction frame of the new nuclear plant project integrated into a multi-units site (e.g., safety concept and principles, essential safety functions, regulatory requirements, integrated management);
3. Presentation of the safety and support systems, including administrative measures envisaged to ensure safety and security of nuclear unit, including the substantiation of the associated nuclear safety requirements;
4. Technical Specifications (known as *Limiting Conditions for Operation - LCOs*) presentation emphasizing their importance as supporting licensing documentation and during the nuclear unit operating regimes;
5. Brief but enlightening presentation of the relationship between the main requirements of European agreements ratified by the Bulgarian party or other international recommendations (e.g., IAEA, US-NRC) on nuclear safety, regarding the nuclear safety, the safe management of radioactive waste and spent nuclear fuel, the environment impact assessment in trans-border context, the information and public participation in decision, ... etc, and their coverage by the laws, rules and Bulgarian standards;
6. Identification and presentation of the radioactive waste management system, including information about spent nuclear fuel, about their classification, about details on how and where to transfer them, and about the involved transport containers characteristics;
7. Identification and specification of the details associated to process and nuclear and radiological safety performance characteristics of the plant, in the context of integrated management system application (safety management, quality management, safeguards and security, environment protection, health and occupational safety, financial arrangements);
8. Discussion on the impact analysis results of the operation of the new nuclear unit on the existing functional units (and vice versa) and on the nuclear plant site as a whole;
9. Presentation of the main aspects of environmental monitoring system in the context of meeting regulatory requirements;



10. Presentation and conduct detailed list of the considered accident scenarios, including design basis accidents (DBA) and beyond design basis accidents (BDBA plus severe accidents);
11. Discussion on the main results of the achieved nuclear safety probabilistic assessment, with emphasis on BDBA postulated initiating events and severe accidents;
12. Discussion on the main results of the hazard analysis of common cause events (earthquake, flood, fire, explosion, extreme weather conditions, missiles, aircraft crash, nearby human activities, etc.);
13. Presentation of dose limits and constraints, as well as the derived emissions limits (DEL) of the radioactive releases to air and water effluents, during normal operation and accident conditions, in comparison with those at European level, taking into account the effects on environment and Romanian population; revealing assertions on calculation assumptions, the method of calculating the derived emission limits, the definition of critical group(s), the considered scenarios and exposure paths, are essential for such a report;
14. Identifying, presenting and analyzing the evolution of environmental factors associated to site, by construction of this new nuclear unit;
15. A summary (listing) of the main code/computer programs used in performed safety analyses (deterministic and probabilistic) and referencing the methodologies and acceptance criteria of accident analyses results;
16. A concise presentation of information on the use and management of toxic and hazardous non-radioactive chemicals in the plant and data on how the requirements in force will be accomplished regarding their impact on environment;
17. Presentation of considerations relating to cumulative impact assessment, on short, medium and long term of nuclear power plant on the environment and on the establishment of emergency planning zones, with involvement of the Romanian territory;
18. A description of the assessment results of the radiological impact on the Romanian territory, both during normal and abnormal operating modes and during accident conditions (DBA and BDBA), including severe accident;
19. Details on technical, procedural and administrative measures in order to reduce the trans-boundary impact, both during construction and operating phases.
20. Taking into account potential transboundary impact, we require a Dispersion modeling study for air pollutants under unfavorable conditions, the effect on Romania (taking into account all meteorological factors).

