Questions and answers during the public hearing meeting, Bucharest 14 October 2015

No.	Name/Organisation	Question	Answer
1.	Stefania Chiriac (AMEC Earth & Environmental) and Simona Ivanica (AFW Nuclear)	My name is Stefania Chiriac on behalf of AMEC Earth & Environmental company. Regarding the environmental impact assessment report and the procedures presented the following problems were identified: The provisions of the European directives are not applied as the alternatives, the state of the environmental elements, the multi-units effects, the cumulative effects are not presented and until now only the Danube heat load was presented as cumulative effect of the Project. Which fuel will be applied and from which country will it be imported? How will it be transported to the NPP? How will the radiological and non-radiological monitoring will be provided?	**The Romanian Party:** The Hungarian Party was informed that in case it could not give a comprehensive answer to the questions the answer should be sent in writing. **Attila Aszódi government commissionaire:** The Espoo and Aarhus Convention and also the EIA Directive were transposed by Hungary and the EIA report of the Project was carried out accordingly. It has to be mentioned that the non-technical summary is not equal to the EIA report. When we consider the documentation EIA report should be read in its full length. The details of the fuel supply are also described in the EIA report. Fresh fuel can be transported both by rail and by aircraft. Widespread experience is collected regarding this as NPP is operating on the site. On the other hand the transportation of spent fuel is carried out by rail and it is regulated by strict provisions in particular the container of the spent fuel. The transportation of spent fuel can only be carried out if each concerned country approves it. Separate procedure applies to the transportation of fresh and spent fuel. During the first part of the operational time of the new units the fuel will be provided by the Russian Party and – taking into account the diversity requirements set by the EU – after this time other fuel suppliers can be considered. Regarding environmental monitoring: the existing operational environmental monitoring system will be applied and also supplementary elements will be installed. Other dangerous substances will also be monitored according to the Hungarian provisions.

			The consideration and evaluation of the reasonable alternatives were carried out according to the Directive, both technological and site alternatives have been evaluated. The technological alternatives were investigated in the scooping procedure. **Bálint Dobi head of department:** The Directive as a type of legal act gives flexibility to the Member States to take into consideration their specificities when transposing its requirements. That can lead to difference in implementation of the Directive among the Member States. The reasonable alternatives were examined and presented in the Preliminary consultation documentation. This documentation was translated into several foreign languages and sent to 30 countries including Romania. The public and the authorities in Romania had the chance to comment on this document and the foreign countries made their decision on participating in the procedures.
		In Romania the EIA procedures consists of three part: screening, scoping and report analysis. During the screening it should be decided whether a proposed project is obliged to be subject of an EIA procedure. During the scoping procedure the authority gives its opinion on the scope of the EIA.	**Dr. Andrea Kondorosi, head of department** In Hungary this procedure is a bit different as a comprehensive documentation is elaborated by the Developer already in the scoping procedure. The scoping procedure belongs strictly to the main procedure (EIA). This strict connection is also proved by the finding of the Aarhus Compliance Committee as it has confirmed that involving the public already in the scoping procedure satisfies the requirements of the Convention on early involvement. And Hungary did it so. Regarding the obligation posed by the Directive in a case the European Commission declared that the requirement of examining the alternatives does not mean that the comprehensive examination shall be presented in the EIA report. This obligation means that the MS has to do the examination and make a notification on it. The EIA Directive does not either say that the environmental effects of the alternatives have to be presented in the EIA report.
2.	Greenpeace Romania Ionut Apostol	My name is Ionut Apostol from Greenpeace Romania. What are the plans on final disposal of the high level wastes?	**Attila Aszódi, government commissionaire:** I did cover these subjects in my presentation, but I do not mind repeating them. *High level waste disposal:*

		While examining the alternatives was the costs of radioactive waste management taken into consideration? What are the effects of a potential serious accident to the functioning units? What is the opinion of the competent nuclear authority (National Commission for Nuclear Activities Control) on the serious accidents? What are the effects of a potential serious accident on the Romanian population? He did not find the answer satisfying but did not ask for supplementary information.	According to the EU directive each Member States has to prepare a national program on spent fuel and radioactive waste management. In Hungary this task is divided into two parts: first a national policy was adopted by the Hungarian Parliament back in May this year. The National Program had been developed accordingly and notified to the European Commission in August. The strategic environmental assessment of the National Program is now carried out. Regarding the final disposal facility several sites have been investigated. These tasks are carried out by a separate legal entity appointed by law. Regarding the costs of the waste management there is a functioning system based on a separate fund in Hungary. According to the Hungarian legislation the costs of the present power generation activities shall be covered by the present generation. Thus the cost of waste management has to be incorporated into the costs of the electricity production. *Severe accidents:* In the case of the two new nuclear units more serious requirements apply regarding the design basis. Addition to that in case of design extension conditions strict requirements have to be satisfied, too. As it is required to keep the integrity of the containment even in DEC 2 accidents the early release and the late large release is practically eliminated. Therefore the source term is limited, even in case of severe accidents. The environmental effect of the release in these accidents is examined and detailed in the EIA report. These radiological effects are very low in terms of the transboundary aspects. **Romanian Party** mentioned that the deadline of sending the questions, comments, opinions is tomorrow. Regarding the opinion of the competent nuclear activity (The National Commission for Nuclear Activities Control -CNCAN), this will be address during the bilateral consultation meeting between authorities that will be held tomorrow.

3.	Olimpia Negru	How will the cooling provided in case the Danube water level is extremely low?	**Prof. dr. Attila Aszódi government commissionaire:** Both the low water level and high water level of the Danube have been analyzed in details. The cold water channel is properly designed in order to make the cooling water accessible even at the lowest water level. During the period when the 6 units will be operating the water need will be higher and the cold water channel will be upgraded accordingly. It was also taken into consideration that in the next years the bed of Danube will become deeper as several hydropower plants have been implemented in upstream countries and therefore the movement of river deposits is limited. The extent of this (depth) is estimated to be approximately 1 meter in the next 100 years. The cooling water pumping station will be designed taking into consideration the above mentioned conditions, in order to have access to the cooling water even in case of low water levels.
		What are the effects of the usage of the Danube as a coolant on the runoff of the river?	**Attila Aszódi government commissionaire:** There are no significant effects. The Danube water as coolant only takes the heat from the condenser, the power plant will not consume the water itself. The discharged water is a bit warmer, therefore it evaporates a bit more intensively, therefore it cools down. The Danube evaporates from its surface anyway, so this doesn't have so much effect, it means only a few m3/s additional evaporation.
		What will happen with the plant in case of flooding?	*Flooding of the site:* The site is very good selected from this point of view. The site was choosen for the Paks NPP in the 1970s, and we examined it very well. It lays on a local maximum point, it is well elevated. The flooding issues were recently examined (at 2011) because of the European „stress-tests" after Fukushima. The ground level of the operating NPP is higher than the top of the dike of the Danube. It is in fact impossible to flood the site. In case of accidents, there will not be any pollution of the discharged water. Because of the improved active and passive safety systems and robust design the failure of the containment building can be practically eliminated, so there

		Have you examined scenarios of serious accidents and modelled the movement of the radioactive release on the Romanian territory?	is no radioactive release into the Danube not even in case of DEC-2 severe accidents with core melting. *Releases and dispersion of the radionuclides* during severe accidents We conducted really detailed calculations. We used 3 dimensional Euler-model. The model was applied on a grid, which covered Hungary and the neighboring countries, including Romania. From the meteorological data point of view we used real data from the year of 2011. We investigated DBC-4 and DEC1-2 conditions as well. We assumed, that an accident occurs every day, and we followed the released isotopes for 30 days from the day of release. We made these calculations for all days of 2011. This gave us a database, where we had doses for all of the considered cities for all investigated situations. We have shown the results of these calculations, we choose the worst (biggest) dose for each cities. The results cleared, that even in case of DEC-2 severe accidents the inhalation doses close to the Hungarian border never exceed 10μSv/y. If we consider the ingestion (food chain) and all the other kind of irradiation paths, the dose rate grows by approximately 50%, so the inhalation dose is the major factor.
4.	Corobea Florica	Mr. Aszodi stated in his presentation that the discharged water has an 8°C higher temperature, than the Danube itself has. That is why the heat plume stays at the right bank of the river. But the Danube is a water body in continuous movement, shouldn't the plume have to mix with the water of the river? I'm a Physicist. I can quote the Archimedes-law in Romanian: (she does).	**Prof dr. Attila Aszódi government commissionaire:** The buoyancy makes the plume to stay at the upper region of the river. A few °C difference is already enough to separate the warm discharged water from the cold Danube-water because of the Archimedes-law. Of course the turbulence convection and diffusion and the evaporation also cools the heat plume, but close to the point of discharge the warm water floats mainly on the cold water. **Attila Aszódi government commissionaire:** Yes, exactly, there is no contradiction here. As in case of the bubbles in a bottled sparkling water, the buoyancy makes the bubbles float, the warm water does the same in a cooler environment. You also can feel the difference at the beach in summer, where in many cases the upper region of the sea is warmer than the deeper regions.
5.	Lucian Stirb, Terra Mileniul III	Several NGO's of some Central Eastern European countries compiled a statement,	**Dr. Zoltán Horvath head of BMKH:**

		which reflects their opinion on the project. The speaker wanted to highlight some of them. Transparency issues: Mr. Benedek Javor made some „classified" documents public on the webpage of the Nuclear Transparency Watch. These documents „rang bells" because of some aspects of the project. They attached these documents to the compilation of them. Are these documents officially public? Did the authority get all the documents which are necessary to close the procedure? Did the Romanian authority get all the required documents to close the procedure? Because I was informed, that the procedure was delayed at Vienna because of some similar reasons. The compiled document is a 6-page-long statement of the NGO's, which is a public statement. There are no confidential documents on the table now.	We were asked for some documents as data requests, we sent to Mr. Javor all the documents which were allowed by the Hungarian law. It wasn't our job to follow what he (Mr. Javor) did with the documents, where did he make them publicly available or what conclusion did he get. We will send him all the documents what is he going to ask from us, if it is possible in accordance with the Hungarian law. There is no secrecy around this procedure. **Answer by the Romanian Party:** It is the first time we see these documents, will send them to the Hungarian Party for response in write. **Dr. Zoltán Horvath head of BMKH:** This information is false. There was no delay at Vienna at all. The public consultation was held two weeks ago, everything went fine. **Answer by the Romanian Party:** We received all the documents which are necessary to close the procedure and that is why we can hold this public consultation. We were also able to hold 2 other consultations at Timisoara and Oradea. We still need an expert consultation before we can close the procedure, what will happen tomorrow at Bucharest. All the relevant Romanian authorities will participate, and also the Hungarian Party will send delegation. **Answer by Prof dr. A. Aszodi government commissionaire:** The abuse of classified data is a crime. All environmental related data are public, and the EIA contains all the relevant environmental information about the project. If the attached documents are related to the procedure, please let us examine them.