

## RECORD

of the public hearing of documentation pursuant to Section 17 of Act No. 100/2001 Coll., on environmental impact assessment and amending some related acts (Act on Environmental Impact Assessment), as amended (hereinafter referred to as the "Act"), and Section 3 of the Decree of the Ministry of the Environment (hereinafter referred to as "ME") No. 453/2017 Coll., on professional qualification and on modification of some other issues related to environmental impact assessment (hereinafter referred to as "Decree") for the project

### **"New Nuclear Source at the Dukovany Site"**

held on 19/6/2018 from 12:00 at the Winter Stadium in Třebíč,  
Kateřiny z Valdštejna 1, 674 01 Třebíč.

#### **I. BASIC DATA**

##### **1. Assessment procedure before the public hearing**

- On 20/7/2016, a notification of the project (Notice of Intent) processed in the scope of Annex No. 3 to the Act (Ing. Petr Mynář, holder of authorization pursuant to Section 19 of the Act; Certificate of Professional Competence ref. no. 1278/167/OPVŽP/97, extension ref.no. 43733/ENV/11) was submitted to the Ministry of the Environment, Department of EIA and Integrated Prevention (hereinafter "ME DEIAIP").
- On 28/7/2016, the MoE sent the notification of the project to the concerned local government units (hereinafter referred to as "CLGU") and to the concerned administrative authorities for publication and comments.
- By letters dated 28/7/2016, the Republic of Austria, the Slovak Republic, the Federal Republic of Germany, the Republic of Poland and Hungary were notified of the project contained in Annex I to the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention). All those states expressed their wish to participate in the international process of environmental impact assessment of the project under consideration.
- On 9/12/2016, the Ministry of the Environment issued the conclusion of the fact-finding procedure in which it set out the areas on which it is necessary to place emphasis when preparing the project environmental impact documentation (hereinafter referred to as "documentation").
- On 13/11/2017, the documentation with requisites pursuant to Annex 4 to the Act was submitted to the Ministry of the Environment (Ing. Petr Mynář, holder of authorization pursuant to Section 19; Certificate of Professional Competence Ref no. 1278/167/OPVŽP/97, extension ref.no. 23110/ENV/16).
- On 16/11/2017, the MoE sent the documentation to the CLGU, the concerned authorities (hereinafter referred to as "CA") and to the states concerned for

publication and comments. Information about the documentation was published on 2/ 11/ 2017 on the official notice board of the last of the concerned regions.

- By letter dated 17/1/2018, RNDr. Tomáš Bajer, CSc., holder of authorization pursuant to Section 19 of the Act (Certificate of Professional Qualification Ref. No. 2719/4343/OEP/92/93, Decision on Extension of Authorization Ref. No. 52153/ENV/15) was entrusted with the preparation of the environmental impact assessment report (hereinafter referred to as “expert report”).
- On 6/4/2018, an international consultation within the meaning of Section 13 (3) of the Act with the Federal Republic of Germany took place.
- On 10 – 11/4/2018, an international consultation within the meaning of Section 13 (3) of the Act with the Republic of Austria took place.
- By letter dated 7/6/2018, the MoE sent information on the public hearing to the CLGU, CA and the states concerned for publication. Information about the public hearing was published on 11/6/2018 on the official notice board of the last of the concerned regions.

## **2. Place and time of public hearing**

The public discussion of the documentation pursuant to Section 17 of the Act took place on 19/6/2018 from 12:00 at the Winter Stadium in Třebíč, Kateřiny z Valdštejna 1, 674 01 Třebíč.

## **3. Procedure of the public hearing**

Mr. Petr Studenovský was in charge of the public hearing procedure (pursuant to Section 3 (2) of the Decree). The Ambassador of the Czech Republic to Austria JUDr. Ivana Červenková and the Ambassador of the Czech Republic to Germany Mgr. Tomáš Jan Podivínský were present at the consultation for the Czech Republic. On behalf of the MoE, Mgr. Evžen Doležal, Director of DEIAIP, Ing. Milan Muzikář, Head of the International EIA Department, Ing. Klara Maláčová, Ing. Nela Zemanová, RNDr. Ondřej Bušek, Ing. Kristýna Janků and Ing. Tomáš Věbr, staff of the International EIA Department of the MoE DEIAIP were present.

## **4. Subject of the public hearing**

The subject of the public hearing was the documentation, opinions of the CLGU, CA and the states concerned and the public's opinion on the environmental impact of the project “New Nuclear Source at the Dukovany Site”.

## **5. Participants in the public hearing**

At the public hearing, the parties were represented by the following persons:

representative of the notifier (Elektrárna Dukovany II, a. s.) (for and on behalf of ČEZ, a. s.)	Ing. Martin Uhlíř, MBA  Ing. Bohdan Zronek Ing. Petr Závodský, Ing. Jiří Füzér
documentation processor	Ing. Petr Mynář Ing. Petr Vymazal

Ing. Jiří Řibřid  
Ing. Jozef Mišák, CSc.  
Ing. Peter Čarný

review processor

RNDr. Tomáš Bajer, CSc.  
Ing. Josef Tomášek, CSc.  
RNDr. Milan Macháček

concerned local government units:

Vysočina Region

Mgr. Pavel Pacal, Deputy Governor

South Moravian Region

RNDr. Miroslav Kubásek, Ph.D.,  
Chairman of the Committee on  
Interregional Relations

Dukovany municipality

Mr. Miroslav Kříšťál, mayor

Slavětice municipality

Mr. René Moravec, mayor

Rouchovany municipality

*did not participate*

Lhánice municipality

*did not participate*

Mohelno township

Mr. Jiří Kostelník, mayor

Kladeruby nad Oslavou municipality

*did not participate*

Kramolín municipality

*did not participate*

Dalešice township

*did not participate*

the town of Hrotovice

Mr. Antonín Mlynář, deputy mayor

Litovany municipality

*did not participate*

Přešovice municipality

*did not participate*

Horní Kounice municipality

*did not participate*

Rešice municipality

Ms. Petra Jílková, mayor

Horní Dubňany municipality

*did not participate*

Biskoupky municipality

*did not participate*

the town of Ivančice

Mr. Milan Buček, mayor

Moravské Bránice municipality

*did not participate*

concerned authorities:

Vysočina Regional Authority

JUDr. Roman Slouka

South Moravian Regional Authority

Ing. Jiří Hájek

Municipal Office Třebíč

*did not participate*

Municipal Office Náměšť nad Oslavou

*did not participate*

Municipal Office Moravský Krumlov

*did not participate*

Municipal Office Ivančice	<i>did not participate</i>
The Ministry of Health	<i>did not participate</i>
Hygiene Station of the Vysočina Region based in Jihlava	<i>did not participate</i>
Hygiene Station of the South Moravian Region based in Brno	<i>did not participate</i>
The Agency for Nature Conservation and Landscape Protection of the Czech Republic, Regional Department, Protected Landscape Area Authority Žďárské vrchy	<i>did not participate</i>
Czech Environment Inspection, OI Havlíčkův Brod	<i>did not participate</i>
Czech Environment Inspection, OI Brno	<i>did not participate</i>
State Office for Nuclear Safety	Ing. Dana Drábová, Ph.D.
Railway Administration, Olomouc Region	<i>did not participate</i>
Povodí Moravy, s.p. (Morava River Administration) Dyje factory	<i>did not participate</i>

States concerned:

Republic of Austria	delegation led by Mr. Molin
Hungary	Mr. Kovács

Public representatives were also present at the public hearing. In total about 120 people attended the public hearing.

## **6. Program of the public hearing**

1. Introduction
2. Presentation by the representatives of the parties
3. Discussion
4. Conclusion

## **II. PROCEDURE OF THE PUBLIC HEARING**

The public hearing was opened by Mr. Evžen Doležal (MoE), who introduced the participants with the aim of the public hearing. He then gave the floor to Mr. Petr Studenovský, who provided organizational information to the participants, introduced them to the public hearing program, and introduced representatives of the parties. Mr. Evžen Doležal then recapitulated the individual steps of the project environmental impact assessment process (hereinafter referred to as the “EIA procedure”).

In the second part of the public hearing, in accordance with the public hearing program, representatives of the individual parties spoke.

The representative of the notifier, Mr. Martin Uhlíř, acquainted the participants with the notifier of the project, i.e. Elektrárna Dukovany II, a. s. and with the project to build a new nuclear source, i.e. with its planned power, reference types of reactors, lifetime of new units and conceptual anchoring of the project. He also recapitulated the time sequence of construction, commissioning of new units and shutting down the existing units, described the project location and the current state

of the project preparation (work on tender documentation for contractor selection, work on tender safety analysis report), informed about the conclusion of a future contract on power output with ČEPS, a.s. and the ongoing preparation of the transport of heavy and oversized components and ongoing surveys in the areas of geology, hydrogeology and others for the next stages of the project documentation.

The documentation processor, Mr. Petr Mynář, in his presentation, acquainted the participants with the basic methodological prerequisites in processing the documentation and with the conclusions of the documentation.

Introductory words from the Ambassador Ivana Červenková and the Ambassador Tomáš Jan Podivínský followed.

Mr. Petr Studenovský then invited the CLGU and CA representatives to submit any comments on the project. The present CLGU representatives (see above) and the representatives of the towns of Moravský Krumlov, Náměšť nad Oslavou and Třebíč expressed their support for the project while maintaining the necessary safety. The CA representatives (see above) referred in their opinion to the written opinions submitted to the documentation and requested their consideration and settlement of the comments contained therein and subsequently in the binding opinion on the project environmental impact assessment.

This was followed by a statement from the representative of the state concerned - Mr. Molin, Federal Ministry for Sustainable Development and Tourism, spoke on behalf of the Republic of Austria, following previous discussions in the framework of inter-state consultations held in Prague and public consultation held in Vienna where comments have already been submitted. At the public hearing, some of the points were again discussed in detail. The representative of Austria said that he would include the results of the public hearing in the final opinion of the Austrian side, which would then be sent to the MoE.

On behalf of the Republic of Poland, the Slovak Republic, the Federal Republic of Germany and Hungary, the representatives were absent or did not use the space for their presentation.

Subsequently, the representatives of the public, the public concerned, other representatives of the Republic of Austria and the representatives of the local government units also submitted their comments in the discussion. Representatives of individual parties (representatives of the Ministry of the Environment, the notifier, the documentation processor and representatives of the authorities concerned) responded promptly to the questions raised.

The topics discussed can be divided into several areas according to their focus. Great attention was paid to strategic topics, where the **absence of evaluation of alternative energy scenarios**, absence of variants in the Concept of Radioactive Waste and Spent Nuclear Fuel Management (hereinafter referred to as the “Concept of RAW and SNF Management”) and failure to consider a higher share of renewable energy sources (hereinafter referred to as the “RES”) in the energy mix in the Czech Republic was objected.

*The questions or topics raised were answered in the sense that the documentation is already focused on a specific project, which is part of the Czech Republic's energy mix evaluated in the State Energy Policy of the Czech Republic (hereinafter referred to as "SEP") and its updating; the SEA was part of the evaluation of this policy - a variant evaluation was carried out and completed with the approval of the policy. The SEP considered 6 scenarios – solely gas scenario, renewable scenario, scenario with breakthrough territorial limits for lignite mining, etc. A deep analysis was carried out in terms of energy security, competitiveness, sustainability and on this basis the so-called optimized scenario was selected. The variant with maximum utilization of renewable resources, which is possible in the Czech Republic, was approved and further optimized. Currently, 13% of energy in the Czech Republic is produced from RES.*

*It was also reported that in the field of photovoltaic power plants, installed capacity (per capita) in the Czech Republic is currently higher than in Austria and Germany. Germany has an installed capacity of about 40 GW (40 units of the Temelin NPP (hereinafter NPP)), but it still accounts for only up to 10% of the energy produced in Germany.*

Another area discussed was the **project's economy - high financial demands on the construction of new units, the issue of financing and the resulting price of energy produced by a new nuclear source** (hereinafter also referred to as "NNS"). Questions were raised about the price of NNS energy per 1 MWh, including all related costs (final repository), about the total financial costs of the NNS (including warnings of increased costs during the construction of nuclear reactors around the world). Other questions related to the volume of funds on the so-called atomic accounts, as well as the costs of remediation of the territory after uranium mining in the Czech Republic and the method of their payment.

*The questions or topics raised were answered in the sense that the price for the NNS depends on the selection of the supplier (for the construction of 2 units it will be approx. € 11 billion). In the Czech Republic, electricity from a nuclear power plant is the cheapest and the price per unit of electricity produced by the NNS will be influenced by the investor and financing models. If the investment model is advantageously set, the price may be around 50-55 € per MWh, if the state is the investor, the price may be slightly lower. If the NNS were not realized, gas power plants would be built, which would increase the price of electricity and also the Czech Republic's dependence on natural gas supplies, and at the same time there will be a significant increase in CO<sub>2</sub> emissions.*

*It is not true that no power plant was built at a given time and budget. The last example is the Barakah power plant in the UAE and the Ostrovec power plant in Belarus.*

*There are two different "atomic" accounts. The account to take care of the NPP decommissioning is an escrow account managed by the NPP operator, from which the operator will finance decommissioning. The costs of decommissioning are regularly updated and according to current estimates, the costs per unit will be*

*approx. CZK 10-15 billion, the operator is obliged to have this money available on termination of operation. The state of the account is subject to state supervision every year. The second account is an account with a contribution of CZK 55/MWh, which is intended for collecting funds for the project of permanent disposal of radioactive waste and spent nuclear fuel (hereinafter referred to as "SNF") – i.e. a deep geological repository. This account, the so-called nuclear account, is managed by the state (today approx. CZK 30 billion); by the end of the operation of the existing and new nuclear units, approximately CZK 100 billion will be collected, which, according to current estimates, should cover the project of permanent repository for the most part. A nuclear power plant is the only industrial and energy facility that saves money on the nuclear account for the liquidation and construction of a nuclear repository.*

*The cost of remediation after uranium mining reaches about CZK 30 billion, this old ecological burden is financed by the state, as well as other environmental burdens after other mining activities. Remediation of these burdens is at least as expensive as remediation after uranium mining.*

Other questions were focused **on the energy security and self-sufficiency** of the Czech Republic and in particular the **potential energy dependence** of the Czech Republic on Russia or China through financing, equipment supply and fuel supply.

*On these topics it was stated that one of the goals of the state is to ensure the energy security of the state; more than half of the existing sources will be shut down within 20 years, therefore, their replacement must be considered while simultaneously saving energy and using RES. Energy demand in Europe is steadily rising.*

*The assumption is that a large number of components will be delivered by Czech companies, as was the case with the construction of the Temelín NPP. Moreover, dependence on another state through the supply of technology will last only during the construction period. Subsequent operation may already be provided by ČEZ, a.s. The acquisition of fuel can be divided into two phases - the acquisition of fissionable material, which used to be used in the Czech uranium mines, now closed, uranium is purchased on the free market under the supervision of the Euratom Supply Agency, many sources are diversified, suppliers come from many parts of the world. The second phase is the production of fuel assemblies, the so-called fuel fabrication, where there are several potential suppliers; the possibility of maintaining several suppliers is considered or the fuel assemblies can be stocked up for a longer period of operation in order to be able to commission fuel production to someone else (this is the current situation in both NPPs - fuel reserves for more than 2 years).*

The discussion also raised a reminder of the **absence of evaluation of the related projects and impacts of uranium mining**, where the documentation should, in the questioner's opinion, deal with the assessment of all constructions as one project. However, the documentation does not address the spent nuclear fuel

storage (hereinafter referred to as “SFS”), the strengthening of the transmission network and the reconstruction of the Slavětice substation, 11 transport structures – extension of transport routes for the transport of oversized and heavy components.

*In response to this question, it was reported that from the legal point of view this solution is OK, the intentions are considered as a whole as far as possible, if some other projects, which are planned in the longer term, are not assessed, the assessment of synergistic and cumulative effects is checked in the documentation, this has been checked and the documentation complies with the requirements of the law in the sense that these constructions have been assessed and evaluated and are listed in the documentation. From the perspective of the law, the SFS is a separate project and a separate EIA procedure will be conducted for it at the time of its preparation.*

Other topics discussed were **SNF, its management and the issue of the final disposal of nuclear waste**. The public asked about the amount of SNF, the impacts of SNF storage on the site of the power plant before the construction of the final repository, whether the management of increased amount of newly produced nuclear waste is also discussed.

*The questions were answered promptly. The amount of waste generated per 1 MWh produced is approximately 4 g. Each year, Dukovany NPP and Temelín NPP produce about 90 t of spent fuel. The back-end of the fuel cycle, which is regulated by legislation, is partially included in the documentation, there is a Concept of RAW and SNF management, which was assessed in the SEA process and which, in relation to the SEP, assumes a number of individual types of radioactive waste and how the Czech Republic will handle them. In accordance with the Concept of RAW and SNF Management, long-term storage is currently realized in dry storages on the Dukovany NPP site, both storages have undergone separate assessment, and any additional storage facility will be assessed in a separate EIA process. As a result of the evaluations carried out so far for the storages in the Czech Republic, the impact is acceptable. The documentation states that SFS is not part of the project, it is not necessary for the start of operation of NNS, NNS has a storage capacity for min. 10 years of operation in their own pools, only then a separate storage be will required, which will be assessed at the time of preparation, taking into account the currently best available technologies. In the ongoing EIA procedure, the potential synergies of the storages, that are low, were considered (dry container technology does not release any radionuclides into the environment).*

To the objection that **no specific type of reactors had been identified**, it was reported that the *environmental impact is assessed during the EIA procedure and that the reactor type was sufficiently defined from this point of view. It will be a pressurized water reactor, where the type, composition and burnout of the fuel is evident, so it is possible to determine precisely what the total activity content in the active zone is. The maximum permissible leak in the case of a severe accident (30 TBq of Cesium-137) has been defined and it is clear from the parameters (reactor type, fuel type) that the reactor must have containment and all equipment necessary to handle the phenomena associated with the most severe accidents (if there is no*



*such equipment, it would not be possible to prove that large leaks are practically excluded).*

Other topics discussed were **nuclear safety, practical elimination of early radioactive leakage and its detection, probability of natural disasters, demonstration of safety targets and preventive measures.** Concerns have also been expressed about nuclear energy due to the deteriorating security situation in Europe. Detailed questions were asked about Cesium-137 and its effects on soil, plants. It was also stated that it was important for Austria that there were no negative effects in the event of an accident. However, it is clear from the calculations in the documentation that this is not the case, albeit with little probability. First of all, this concerns food contamination. This implies a need for agricultural measures, such as early harvesting and stabling. Interstate consultations have shown that Austrian territory may be affected by iodine contamination up to 380 km, which implies the need for early harvesting. In addition, there may be serious effects where the per-capita dose threshold per year of 1 mSv in Austria will be exceeded. Another issue is preventive measures based on Austrian regulations, such as iodine prophylaxis. It was requested to check whether the most unfavourable weather conditions were taken into account in the calculations for Austria.

*It is a priority and responsibility of all those working in the field of modern technology to ensure that it always brings more benefit than harm (the principle of justification) and that the risks associated with it are comparable to those that present the risks of everyday life. Nuclear power plant technologies must be and are regulated in such a way as to achieve such low probabilities that they go beyond human imagination. Regarding real NNS units and data from their license documentation, the probability of severe damage to the reactor active zone is  $10^{-6}$  –  $10^{-7}$ , i.e it is low, but even if the reactor is destroyed, there must be no large leaks – it must be virtually excluded, therefore, design measures are taken to prevent major leaks and the residual risk is then assessed with a value of  $10^{-7}$  that is sufficiently low. For the reactors under consideration, the summary probability of large leaks is  $10^{-8}$ .*

*In the case of resistance to external influences (earthquakes), the approach is different from practical exclusion, in the case of earthquakes the situation is addressed by taking sufficient reserve. There are sufficient reserves in the Czech Republic; if the calculated earthquake of 0.05 gravitational acceleration applies, resistance to 0.25 g is required for NNS. The calculated earthquake of 0.25 g is a conservative assumption and does not lead to the active zone damage, it is a design value for the engineering design of structures.*

*To demonstrate practical exclusion, it was stated that in the future, at the time of the reactor construction, a standard procedure would be set up as with any other nuclear facility. National supervision, international standards and the European Commission set the conditions and the builder will propose how to comply with them, it will be part of the standard approval procedure. If addressed today, there are clear requirements to be met - long-term containment integrity must be ensured for new reactors. The mechanisms through which the containment can be broken*

*are clearly defined, and all means must be taken to eliminate any mechanism that would practically damage the containment.*

*Security system or the former NNS physical protection will correspond to the so-called Design Basis Threat (hereinafter referred to as "DBT"), which is determined by SONS based on the opinion of the Ministry of Defence, the Ministry of the Interior and the Ministry of Industry and Trade. The DBT is a classified document updated annually. Regarding deliberate attacks (terrorism), the primary protection is the responsibility of the state – army, police, intelligence services – the risk of attack on the NNS will be minimized or eliminated. Regarding military attacks, the NNS will be classified as other objects of nuclear facilities in the category "Non-military buildings important for the defence of the state" and in the event of a war conflict, the Army of the Czech Republic is responsible for defence of these facilities.*

*The issue of Station Blackout (loss of power supply sources) is not new even for existing power plants, Temelin NPP and Dukovany NPP are equipped with many backup sources for case of loss of own and external power supplies, after the Fukushima accident, the 12th variant of the power supply system in the form of other mobile diesel generators was added.*

*For the evaluation of radiation impacts it was stated that early and major leaks (i.e. in case of a severe accident) will be practically excluded, nevertheless the documentation also deals with the evaluation in case of this severe accident. Assuming unfavourable weather conditions, food consumption limits may be exceeded, but the probability of these conditions and territory is very low. The territory of the Czech Republic, Austria and other affected countries was analysed and it was found that in a limited part of the territory after the accident a ban could be applied to cow's milk and leafy vegetables. The ban would be due to iodine-131 and would be time-limited – as early as a week after the accident, the probability that cows' milk could be banned from marketing somewhere in Austria would be 20%, 30 days after the event the probability would be 4-5%. This is due to the rapid disintegration and radioactive conversion of iodine-131. In addition, contamination with Cesium-137 could occur, but it would be much smaller and hence less likely. According to the results of the analyses carried out for the severe accident, no bans on the sale of local agricultural products will have to be applied due to the exceedance of contamination values according to the EC Directive after one year from the event even in the vicinity of the NNS. Temporary evacuation from the nearest homesteads within 2 km of the NNS for several weeks is possible. Local need for protection measures in agriculture is not excluded.*

*Pertains to 30 TBq Cesium-137 leak - it should be remembered that this is a value that must be defined no matter what is done to prevent accidents. The Chernobyl accident is not relevant; such a reaction cannot physically occur on a pressurized water reactor. There was an accident at the pressurized water reactor when the reactor was destroyed (Three Mile Island - USA). However, this reactor was not equipped with special systems for severe accidents, as it is today, but the environment has not been endangered. The leak of 30 TBq is not the actual course of the accident, it must be assumed that the reactor has been destroyed and the*

*consequences of the accident are calculated. The consequences are acceptable even under conservative assumptions, but in reality the consequences would be much smaller.*

*Often, levels exceeding has been mentioned, which are considered by the Austrian Catalogue of Protection Measures the values that mean automatic implementation of preventive protection measures in agriculture (stabling, accelerated harvesting). The values listed in the Austrian Catalogue are not values that would automatically be the intervention levels to be automatically applied “under law”. The catalogue of measures is a set of numbers and values intended to serve the crisis staff to recommend to the population (farmers) how to proceed.*

*Concerning the potential exceedance of intervention levels in Austria following information provided during international consultations, it was reported that in 2017 there was a significant change in the intervention levels for urgent protection measures (thus departing from the practice in the Czech Republic and Slovakia). The level of shelter (mandated stay in the building) for persons under 18 years of age and pregnant women is the dose of 1 mSv/2 days. This is a very low, conservative value, in the Czech Republic and Slovakia it would be 10 mSv. The same applies to iodine prophylaxis, where for people under 18 years of age and pregnant, the dose for thyroid gland by inhalation of iodine is 10 mSv, in adults it is 100 mSv. The specified values will not be exceeded.*

*In addition to the discussed environmental impacts in the case of severe accidents, today's reactors are subject to the requirement that no measures (neither iodine tablets nor restrictions on food consumption, sheltering, evacuation) should be required for any desing basis accident within 800 m of the reactor.*

**Regarding the absence of a real impact assessment of the major accident INES 7**, it was stated that *it is not appropriate to compare the discussed project with the Chernobyl and Fukushima (INES 7) accident, where there were different types of reactors; theoretically, it could be compared with the INES 5 accident (Three Mile Island), but even this was not equipped with special systems, but there was no threat to the surroundings. The reactors have undergone significant development, a new requirement for the practical elimination of major leaks is set, new reactors are 100 times safer than the previous ones (in terms of the probability of accident), the power plant must be equipped with systems which, even if the reactor is destroyed, ensure that people and the environment are not endangered. Although the accident is not expected (but the probability can never be 0, it is at the level of  $10^{-6} - 10^{-7}$ ), but even so systems will be set up to eliminate unacceptable threats to the environment, major INES 7 accidents must be practically excluded according to current national and international legislation.*

Important topics discussed were the **health of the population**, the impact of the project on health and the issue of a possible increase in the incidence of oncological diseases. *It was reported that during the preparation of the documentation, the incidence of certain types of oncological diseases in the vicinity of the power plant was compared with the control areas and the nationwide average*

*and the effect was not proven or implied. However, it was recommended to repeat the study after 10 years.*

One of the questions concerned the **visual impact of the project** in two possible alternatives (each of the units of the 1 or 2 cooling towers, 1 tower approx. 186 m, 2 towers approx. 164 m). *It was reported that a sensitivity analysis was carried out on the taller tower in terms of landscape effects to determine what was optically acceptable. It was found that a tower higher by 10-15 m would have the same visual impact as the tower under consideration 186 m. Several aspects have to be taken into account. In the case of impact on the landscape character, including the visual point of view, a slightly more unfavourable impact was indicated for two towers of 164 m than for one tower of 186 m; in the case of the construction of two units, then there would be four towers in a row, which would represent a large visual block. Other aspects are the effect on shading (by towers, plumes), the effect on the increase of local humidity, icing, fog. After comparing all aspects, it was found that one tower per unit has an overall impact of less than two towers per unit.*

The area of **water** was also discussed in detail. Part of the questions concerned the issue of water demand, which, in the discussant's opinion, is underestimated, followed by a statement on water supply, including the effects of climate change, and the discussant considers the water supply to be overrated. Also, the **difference in evaporation** from cooling towers in the current state/after the project implementation and the topic of evaluation of water bodies was discussed.

*The flow rate in the Jihlava river has its capacity and without the Dalešice - Mohelno system of reservoirs it would not be sufficient, the reservoirs serve to compensate for unevenness of inflows and outflows. TG Masaryk Water Research Institute, p.r.i. also considered climate change in their calculations; balance calculations were carried out, which confirmed that it is possible to perform trouble-free consumption up to the output of 3 200 to 3 250 MW. The water consumption was also evaluated in terms of ecological functions of the watercourse, the proposed consumption is in accordance with the existing manipulation rules of the Dalešice waterworks, which sets min. residual flow rate below Mohelno. In all cases, the consumption shall be secured in such a way that the ecological flow functions are not endangered.*

*It is important to realize the difference between water demand and consumption. Demand is what a power plant (existing or new) draws from Mohelno, water consumption is what evaporates. Thus, the difference returns to the river, currently about 20 million m<sup>3</sup> at 50 million m<sup>3</sup> consumed, which corresponds to an average concentration of 2.5, which is the ratio between the water drawn and the water discharged.*

*Evaporation is dependent on the heat consumed, temperature and relative air humidity. The existing power plant evaporates on average about 1 m<sup>3</sup>/s, the new source in the maximum variant (i.e. 2 units) - about 1.26 m<sup>3</sup>/s, concurrence of the existing power plant and the new unit for max. 10 years - approx. 1.6 m<sup>3</sup>/s.*

**Liability and compensation for possible damages and damage insurance** were also discussed. *On these topics it was reported that the operator is liable for damages up to CZK 8 billion, the liability should cover everything that does not fall within the INES 6 - INES 7 disaster, which are practically excluded. Moreover, under international law, any damage beyond the legal limit goes to the Czech Republic. Regarding the risks, every human activity has an impact on the environment, the Czech Republic is aware that each energy source represents an impact on the environment and is aware of the risks and, unlike Austria, assesses nuclear risks as acceptable and much lower than those of other sources. Under the Lisbon Convention, the Czech Republic has the right to choose its own way of securing energy.*

In many statements, **disagreement with the project** was expressed, the belief in abandoning the project for economic, safety (possible accidents, lack of water for cooling) reasons and unsolved manner of SNF management. In connection with some of the topics discussed, a request was made to return the EIA documentation for completion.

There was a consensus among the discussants and the panel in the area of emphasis on the quality of staffing of the nuclear power plant.

Last but not least, there was a clear **project support** from the public and representatives of the concerned local government units for economic/socio-economic (benefit for the region and the whole Czech Republic), environmental (state of the environment of Northern Bohemia), technical (stability of the energy transmission and distribution system), strategic (energy self-sufficiency and energy and geopolitical independence of the Czech Republic, positive contribution to the functioning of the emergency preparedness system, crisis management, rescue system, opportunity to maintain level of education and quality education system) reasons. Support was also expressed for the State Energy Policy and the National Action Plan for the Development of Nuclear Energy.

The public hearing was finished on 19/ 6/ 2018 at 20:35.

### III. CONCLUSION

Pursuant to Section 17 (5) of the Act, the competent authority shall make a record of the public hearing containing, in particular, information on participation and conclusions from the consultation, and shall also make an audio record from it.

The impacts of the “New Nuclear Source at the Dukovany Site” project were discussed from all relevant points of view.

I note that all legal provisions for public discussion of the documentation for the project “New Nuclear Source at the Dukovany Site” pursuant to the Act and the Decree have been fulfilled.