

MINUTES
OF THE SLOVAK –AUSTRIAN BILATERAL CONSULTATION
ACCORDING TO ART. 5 OF THE CONVENTION ON ENVIRONMENTAL
IMPACT ASSESSMENT IN A TRANSBOUNDARY CONTEXT
(ESPOO CONVENTION)
REGARDING THE ENVIRONMENTAL IMPACT ASSESSMENT PROCEDURE
ON THE MOCHOVCE 3&4 PROJECT

A. Venue and participants to the consultations

The consultation took place in the, Kaplan meeting room at the Apollo Business Centre II in Bratislava Slovak Republic, on 24th and 25th of November 2009.

The **Slovak Delegation** comprised representatives of

- the Ministry of Environment of the Slovak Republic,
- the Ministry of Economy
- Nuclear Regulatory Authority of the Slovak Republic,
- the proponent SE, a.s., experts from other institutions,

The **Austrian Delegation** comprised representatives of the following bodies:

- Federal Ministry of Agriculture, Forestry Environment and Water Management
- Government of the Land of Upper Austria, Anti Nuclear Coordination
- Government of the Land of Vienna, Ombudsmanship of the Environment
- Government of the Land of Lower Austria, Nuclear Coordination
- Government of the Land of Styria
- Environment Agency Austria
- Austrian Institute for Applied Ecology
- Scientific Consultants,

The list of all participants is attached to the Minutes as Annex 1 and List of attendance is attached to this Minutes of meeting as Annex 2.

The delegations agreed on holding the consultation in English language with simultaneous translation into Slovak and to prepare the Minutes in English. The consultation was held according to the agreed agenda see Annex 3. Upon request of the Austrian delegation the issue of source-terms was dealt with under the severe accident issue.

B. Preliminaries

According to the Art. 3 of the Espoo Convention, the Slovak Ministry of Environment (MESR) notified the - Federal Ministry of Agriculture, Forestry Environment and Water Management by letter sent on 14 August, 2009 regarding the extension of the Mochovce NPP with two new units (Mochovce 3&4 project). At the same time, the environmental assessment documentation was handed over.

The Austrian Federal Ministry confirmed the intention of Austria to take part in the transboundary EIA procedure according to the relevant provisions of the Espoo Convention.

The documentation comprised of the original EIA Report plus its Annexes in English and Slovak languages, as well as the Executive Summary in Slovak and English and extended German one, paper and CD formats.

In the light of Article 5 of the Bilateral Agreement on the implementation of the Espoo Convention, both the Slovak and Austrian authorities agreed, based on letters exchanged, to hold a public hearing in Vienna on the EIA documentation for the above mentioned project on 25 September, 2009. The public hearing was held with the participation of the project proponent's representatives and experts.

Hereupon the Austrian Federal Ministry and the MoE SR agreed on expert consultations in Bratislava, Slovak Republic, 24th and 25th of November 2009.

C. Topics discussed

During the consultation the Slovak side (proponent and representatives of authorities) provided oral answers to all questions raised by the Austrian delegation, in some cases supported by presentations (.ppt). SE, a.s. asked the Austrian side to use the presentation related to the SA only for internal use not for the public.

Detailed list of questions discussed at the expert consultation

1. EIA study does not include an assessment of non-nuclear alternative.

Answer: Proponent requested the MoE SR to allow to abstain from presenting alternative solutions in accordance with the EIA act 24/2006Coll. and MoE SR accepted it.

During the discussion it was explained that three alternatives were considered internally – nuclear (2x440 MW), gas (450 MW), and lignite (450 MW), however were not included in the EIA report. A comparison slide with assessment of the alternatives was presented and commented during the meeting.

The Austrian delegation welcomed this additional supplementary information while expressing different opinions.

2. Requirements on „Third Party Liability“ and relevant financial coverage.

Answer: Explanation of this topic was carried out during public hearing in Vienna and UJD SR added that a new concept of civil liability for nuclear damages was adopted in Dec 2008, based on which UJD SR is due to prepare new draft legislation on increased financial coverage by June 2010.

The Austrian delegation stressed that it advocates unlimited liability in general.

3. Not sufficient assessment of spent fuel treatment.

Answer: Capacity of the existing wet spent fuel storage at Bohunice site is sufficient to store all spent fuel from existing operating units in Slovakia, nevertheless, another dry storage is considered to be built at Mochovce to reduce spent fuel transportation in Slovakia. All comments were considered and the questions were related to the back end of the fuel cycle. The final repository of the spent fuel is the responsibility of the Slovak Government, and the back-end cycle concept was approved in 2008 after the end of the SEA procedure with Austrian participation.

The Austrian delegation highlighted that it considers the final disposal of HLW (high level waste) and spent fuel as major unresolved issue of the nuclear industry over the world. A part of the Austrian delegation expressed the wish that the solution of the back-end of the nuclear fuel cycle be a prerequisite for the operating license.

4. Seismic resistance of the proposed investment.

Answer: The seismic resistance requirements were considered already during the siting stage. Based on IAEA recommendations of 1998, a new probabilistic assessment was done. A follow-up mission of the IAEA in 2003 concluded that all methodologies used were correct. It was also said that conservative approach of assessment potential faults has been completed and final resulting in the seismic value of 0.15 g which was defined by UJD SR for the Mochovce site, higher then results in PSA (0,143 g). A long term monitoring is in place.

Due to the importance of the issues, both delegations agreed to hold dedicated expert workshop under a different bilateral agreement.

5. Electrical output of proposed investment and efficiency of turbines.

Answer: There is discrepancy in numbers related to the electric power in the EIA report, however the reactor thermal power (1375 MW) does not change, it is only a question of new turbine type with higher efficiency (by approx. 7%).

Questions related to nuclear safety and security:

6. Use of new components versus “old” components.

Answer: All components to be used at MO34 were assessed on physical status, safety and qualification requirements. As a result 30% of components were identified as not

suitable and will be replaced with new ones, including electrical equipment, which will be completely new. Significant ageing of components is out of question as it would be imposed especially by thermal and pressure stresses during operation. Heavy components have mostly been delivered to the site. All quality requirements are met and components inspected by regulatory authorities. In addition, the supplier is responsible for final assessment of the components and can decide if components will be used or not.

7. Reactor design does not comply with current “new” reactor designs.

Answer: Requirements on the MO34 reactors are similar to those on “Gen3” reactors, therefore features of Mochovce reactors are comparable to the “Gen3” ones. The performed revision of the Basic Design of MO34 completely fulfills the WENRA reference levels, and IAEA requirements as well as EUR requirements, where applicable. Design of Mochovce Units 3&4 was assessed according to Atomic Act and relevant regulations of the UJD SR issued in 2006.

The Austrian delegation stressed that compliance of the safety features with “Gen3” should be subject to further discussion in the framework of an appropriate workshop under a different bilateral agreement.

8. Missing full pressure containment, which can cause release of radioactive particles in case of accident.

Answer: There is no internationally recognised definition of the full-pressure containment. Full-scope containment is the one compliant with IAEA requirements and WENRA reference levels, and this is the case for Mochovce containment, too. A number of analyses and tests have been successfully performed with this type of containment, which demonstrated full designed capability. Analyses included an OECD/EU project and a trilateral project supported by Hungary, Czech Republic and Slovakia. Moreover, the Mochovce 3&4 full scope containment will be able to withstand severe accidents scenarios.

The Austrian delegation pointed out that evidence currently available to the Austrian side is not sufficient to assess this issue. Consequently, technical evidence will be discussed in a dedicated expert workshop under a different bilateral agreement. A part of the Austrian delegation expressed the opinion that the issue of a full-pressure

containment is very fundamental in terms of the environmental impact and should therefore be resolved in framework of current EIA procedure.

9. Insufficient description of severe accident management.

Mr. Rohar delivered a detailed presentation on Severe Accident management. The Austrian experts were also provided with some handouts.

The Austrian delegation requires that this issue be discussed in detail in a separate workshop under a different bilateral agreement and SE, a.s. agreed.

10. Insufficient protection against terrorist attack by aircraft.

Answer: EC recommended *“to develop a reference scenario including the deterministic impact from an external source (e.g. an impact of small aircraft) in agreement with internationally best practice”*. The UJD SR fully adopted this as a requirement to the operator. Minimum thickness of the containment concrete part is 1.2 m. Analysis of aircraft crash was performed by VUJE – they analysed 12 civil structures from safety point of view and over 60 different impacts. Passive and active measures are applied against terrorist attacks. The confidentiality of counter measures was also underlined.

The Austrian delegation announced to come back to this issue and referred to the establishment of special formats of information exchange with other neighbouring countries.

11. Use of new gadolinium fuel and related safety analysis.

Answer: Mr Simko delivered detailed presentation on various types of fuel used in Mochovce since the commissioning of the Unit 1 in 1998 up to future plans till 2019 (non-profiled fuel – profiled fuel – Gd-II fuel – Gd-III fuel), incl. core patterns of MO34 reactors. SE, a.s. always procure fuel elements which are tested in real operation for at least 3 years. Experts were provided handouts of the presentation.

12. Issue of NPP lifetime – 40 years and impact in increase of possible accidents.

Answer: The basic requirement on the plant life-time is limited by the life-time of the reactor pressure vessel. The original RPV life-time was designed for 40 years.

13. Can you provide information on RPV integrity?

Answer: The manufacturer – SKODA JS Plzeň supplied manufacture documentation with the RPV. It was reviewed during the MO34 completion stage – all requirements on mechanical properties and chemical composition of the RPV are met.

The Austrian delegation requested that the topic of RPV should be discussed in detail at an expert workshop under a different bilateral agreement and SE, a.s. agreed.

14. Fire Protection concept and its compliance with the Safety Guide NS-G-1.7

Answer: All civil structures are divided into fire compartments (around 90% the same like EMO 1&2). All new international fire safety requirements and national requirements of the Ministry of Interior and Presidium of Fire Corps were adopted by the UJD SR and incorporated into a new regulation and the design basis.

Question related to EIA Process and national legislation:

15) National Law does not allow access to the court – with regard to the EIA Process.

Answer: The general definition of the “public” is transposed in § 3 under n) of the national EIA act No. 24/2006 coll. The amendment of the EIA act, No. 287/2009 coll. that entered into force by 1.9.2009, was a reaction to a formal letter of the European Commission stressing that Slovak EIA law did not completely transpose the EIA directive concerning especially the rights of the public. The amended EIA act, inter alia, now grants in §§ 24 to 28, like in the original version of the EIA act, the right of standing in the subsequent development consent procedures to citizens initiatives and non-governmental organizations in the field of environmental protection, which deliver a written statement during the EIA procedure. Being parties of the development consent procedure, they have the right to challenge the development consent decision at the courts according to the civil courts procedure code.

This right of standing is granted also

- to NGOs from a foreign state, although this is not explicitly stipulated in the EIA act. This results from an interpretation according to Art. 3 par. 9 of the Aarhus Convention,

- in the licensing procedures according to the Civil Construction Code and the Atomic Act, although the latter is not listed in § 27 of the EIA act. This results from an interpretation in line with § 1 of the EIA act and Art. 10a of the EIA directive,
- in the case of the subsequent development consent procedures for Mochovce 3 and 4 (as the permit for preliminary operation of the civil structure and than the collaudation procedure according to the Civil Construction Code, and the permit for commissioning and than the operation permit according to the Atomic Act) in spite of the transition provision of § 65a of the EIA act.

It was confirmed that the UJD is the competent authority for the procedures under the Civil Construction Code and the Atomic Act for licensing of nuclear installations in all steps of their lifetime except siting.

D. Conclusions of the Parties are as follows

During the consultation all Austrian questions and comments were answered as indicated in these Minutes.

The Parties agreed that the Austrian Espoo Contact point will deliver a formal written statement to the Slovak Espoo contact point till 15th of December 2009.

The Minutes was prepared and signed in two counterparts.

In Bratislava 25th of November 2009
Drafted by Jozef Belaň

On behalf of the Slovak party

Mgr. Daniela ŽIŠKOVÁ

On behalf of the Austrian party

Dr. Christian BAUMGARTNER

ANNEX 1

List of the participants and experts taking part on the consultation in accordance with Art.5 of the Espoo Convention held in Bratislava on 24th of November 2009.

SLOVAK DELEGATION

ÚJD SR	Martin Pospíšil <i>Director of Legal Affairs Division</i>
	Juraj Rovný <i>Director of Safety Assessment and Inspections Division</i>
Ministry of Environment	Daniela Žišková Gabriel Nižňanský Helena Ponecová Róbert Ružička

Proponent of Investment:

Ministry of Economy	Ján Petrovič
SE, a. s.	Igino Chellini Fernando Romano Jozef Zlatňanský Jozef Belaň Jozef Jánoš Milan Zrubec Milan Števko Pavol Baumeister Jozef Oltman Robert Holý Roman Dolník Juraj Šimko Federico Peinetti Lorenzo Cendalli

VÚJE Risk Consult	Štefan Rohár Ján Kandráč
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AUSTRIAN DELEGATION

- **Federal Ministry of Agriculture, Forestry, Environment and Water Management**
Christian Baumgartner - legal adviser, Division V/1 - Pollution Prevention and Control of Installations (head of delegation)
Andreas Molin - Head of Division V/6 – Nuclear Coordination
Monika Stockert - Division V/6 – Nuclear Coordination

- **Government of the Land of Upper Austria, Anti Nuclear Coordination**
Radko Pavlovec
Gerhard Loidl
- **Government of the Land of Vienna, Ombudsmanship of the Environment**
David Reinberger
- **Government of the Land of Lower Austria, Nuclear Coordination**
Friedrich Rauter
- **Government of the Land of Salzburg, Nuclear Coordination**
Constanze Sperka-Gottlieb
- **Government of the Land of Styria, Division 17c**
Franz Reithofer
- **Environment Agency Austria**
Franz Meister
- **Austrian Institute for Applied Ecology**
Antonia Wensch
- **Scientific Consulting for Energy and the Environment**
Oda Becker
Helmut Hirsch

PREZENČNÁ LISTINA / LIST OF PARTICIPANTS



Prezenčná listina z EIA konzultácií – MO34 konaných 24. a 25. 11. 2009
v Bratislave, Mlynské Nivy 47

List of participants from the transboundary EIA consultations on MO34
held on 24th and 25th of November 2009 in Bratislava, Mlynské Nivy 47

Číslo	Meno/Name	Závod/ útvar/Department	Podpis/Signature
1.	Christian Baumgartner	Federal Ministry of Agriculture, Forestry Environment and Water Management, legal adviser, Division V/1 - Pollution Prevention and Control of Installations	
2.	Andreas Molin	Federal Ministry of Agriculture, Forestry, Environment and Water Management, Director, Head of Division V/6- Nuclear Coordination	
3.	Monika Stockert	Federal Ministry of Agriculture, Forestry, Environment and Water Management, Division V/6 – Nuclear Coordination	
4.	Radko Pavlovec	Government of the Land of Upper Austria, Anti Nuclear Coordination	
5.	Gerhard Loidl	Government of the Land of Upper Austria, Anti Nuclear Coordination	
6.	David Reinberger	Government of the Land of Vienna, Ombudsmanship of the Environment	
7.	Friedrich Rauter	Government of the Land of Lower Austria, Nuclear Coordination	
8.	Constanze Sperka- Gottlieb	Government of the Land of Salzburg, Nuclear Coordination	
9.	Franz Reithofer	Government of the Land of Styria, Division 17c	
10.	Franz Meister	Environment Agency Austria	
11.	Antonia Wenisch	Austrian Institute for Applied Ecology	
12.	Andrea Wallner	Austrian Institute for Applied Ecology	
13.	Helmut Hirsch	Scientific Consultant	
14.	Oda Becker	Scientific Consulting for Energy and the Environment	
15.			
16.			
17.			

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Číslo	Meno/Name	Závod/ útvar/Department	Podpis/Signature
1.	Iginfo Chellini	SE, a. s.	
2.	Fernando Romano	SE, a. s.	
3.	Jozef Zlatňanský	SE, a. s.	
4.	Jozef Belaň	SE, a. s.	
5.	Jozef Jánoš	SE, a. s.	
6.	Milan Zrubeč	SE, a. s.	
7.	Milan Šteško	SE, a. s.	
8.	Pavol Baumeister	SE, a. s.	
9.	Jozef Oltman	SE, a. s.	
10.	Róbert Hollý	SE, a. s.	
11.	Roman Dolník	SE, a. s.	
12.	Juraj Šimko	SE, a. s.	
13.	Federico Peinetti	SE, a. s.	
14.	Lorenzo Cendalli	SE, a. s.	
15.	Martin Pospíšil	ÚJD SR Director of Legal Affairs Division	
16.	Juraj Rovný	ÚJD SR Director of Safety Assessment and Inspections Division	
17.	prof. Vladimír Slugeň	National Nuclear Fond	
18.	Juraj Nociar	Ministry of Foreign Affairs	
19.	Ján Petrovič	Ministry of Economy	
20.	Štefan Rohár	VÚJE	
21.	Pavel Ševera	VÚJE	
22.	Ján Kandráč	Risk Consult	
23.	Robert Nižnanský	KOE SR	

24.

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24.	Mgr. DAVIDA KRŠKOVÁ	HEP SR	<i>[Signature]</i>
25.	Mgr. VELENA PENETOVÁ	HEP SR	<i>[Signature]</i>
26.	Mgr. ĽUBOŠ KUDRŇAN	HEP SL	<i>[Signature]</i>
27.	Mgr. ZDENEK KUDRŇAN	HEP SL	<i>[Signature]</i>
28.			
29.			
30.			

Expert's Meeting
EIA Process for Mochovce 3&4
in line with bilateral Agreement between
Slovakia and Austria and Espoo Convention

Questions proposed by Austrian Experts:

A) Questions related to scope of EIA Process for proposed investment:

- 1) EIA study does not include an assessment of non nuclear alternative.
- 2) Requirements on „Third Party Liability“and relevant financial coverage.
- 3) Not sufficient assessment of spent fuel treatment.
- 4) Seismic resistance of proposed investment.
- 5) Electrical output of proposed investment and efficiency of turbines.

B) Questions related to nuclear safety and security:

- 6) Use of new components versus “old” components.
- 7) Reactor design does not comply with current “new” reactor designs.
- 8) Missing full pressure containment, which can cause release of radioactive particles in case of accident.
- 9) Insufficient description of severe accident management.
- 10) Insufficient protection against terrorist attack by aircraft.
- 11) Use of new gadolinium fuel and related safety analysis.
- 12) Issue of NPP lifetime – 40 years and impact in increase of possible accidents.
- 13) Can you provide information on RPV integrity.
- 14) Fire Protection concept and its compliance with Safety Guide NS-G-1.7

C) Question related to EIA Process and national legislation:

- 15) National Law does not allow access to the court – with regard to the EIA Process.