

# Public Hearing in Vienna

## Transboundary Environmental Impact Assessment NPP Paks II/Hungary

### Report

### Sept. 23<sup>th</sup>, 2015

In the district of Tolna, close to the city of Paks, approximately 100 km south of Budapest, the only Hungarian Nuclear Power Plant (Paks NPP) is located on the right bank on the Danube. On the site of Paks NPP, two additional reactor units are to be built, which would generate 1,200 MWe each; planned lifetime is 60 years. The commercial operation of the new units is scheduled for 2025 and 2030, respectively.

The environmental impact assessment (EIA) procedure for this project is currently being conducted. In April 2015, Hungary submitted the EIA Report for the transboundary EIA procedure. The Austrian Institute of Ecology and Global 2000 in cooperation with NGOs from Joint Project produced a statement for this transboundary EIA<sup>1</sup>.

On the 23<sup>rd</sup> Sept. 2015, a public hearing for the planned new reactors in Paks was held in Vienna in the framework of the Austrian transboundary EIA procedure.

About 65 people attended the hearing, opposing a podium with more than 20 delegates from the Hungarian side. David Reinberger from the City of Vienna (Wiener Umweltschutz) moderated the debate. It started at 16:30h and lasted until midnight. Official minutes for the hearing will be prepared by the federal state of the Burgenland. The hearing was simultaneously translated in Hungarian and German.

First, Attila Aszódi, the Hungarian Government commissioner for the Paks II project, gave a presentation, then the audience had the possibility to ask questions.

### *Procedure and public participation*

The official documents for the EIA have been submitted by Hungary to Austria in March 2015. They have been published on the website of the Umweltbundesamt where the public can access all the official EIA documents. In September 2015, **seven additional official documents** appeared to have been published at the website of MVM<sup>2</sup>, but they have not been submitted to Austria officially and therefore the public was not aware of their existence. The Hungarian side did not deny that these documents were part of the procedure. Members from the Austrian Ministry of Environment Ministry (ESPOO contact point) and the Umweltbundesamt confirmed that Austria did not receive these seven additional documents. Other participating countries like Germany have not published them on their official website for the Paks II EIA either. **The Hungarian side was asked to notify these additional documents to Austria. The deadline for public participation for Austria has to be prolonged.** Representatives of the Austrian public and NGOs demanded the prolongation of the

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<sup>1</sup> <http://www.ecology.at/hotspot142.htm>, [http://www.joint-project.org/joint\\_project\\_2014.htm](http://www.joint-project.org/joint_project_2014.htm)

<sup>2</sup>

<http://www.mvmpaks2.hu/hu/Kozerdeku/KozerdekuDokumentumok/KornyezetvedelmiEngedelyezes/KornyezetiHatastanulmany/Lapok/default.aspx>

deadline for comments several times, but the exact date has not been proclaimed until end of October 2015.

A few months after the official documents for the EIA procedure have been published, Benedek Jávor, Member of the European Parliament obtained **secret documents** about Paks. It was asked that the content of these documents should be published, but the Hungarian side stated that these documents were not part of the EIA.

## *Alternatives*

According to the EIA Directive of the EC and the ESPOO Convention, alternatives have to be presented in an EIA Report. But the EIA Report for MVM Paks II neither includes technological alternatives nor energy production alternatives.

Several times the **Hungarian energy strategy 2030**<sup>3</sup> was cited by the Hungarian side. In this strategy, energy scenarios have been discussed. But this strategy has not been subject to a transboundary strategic environmental assessment (SEA). The Hungarian side remarked that the energy strategy document was publically available and that they would be ready for a transboundary SEA if transboundary impacts of their energy strategy would be possible.

Also members of the public argued for a zero option and the inclusion of energy efficiency scenarios in the discussion of alternatives.

An interesting argument for the necessity of constructing a new NPP was brought by A. Aszódi who said that the energy was needed so that housewives can continue ironing also in future.

## *Nuclear safety*

In the planned reactor type WWER 1200/491 the following safety features (“Fukushima-proof design”) will be used according to the presentation of A. Aszódi:

- Emergency core cooling system with fourfold redundancies
- passive safety systems
- active safety system: emergency heat removal spray pool
- core catcher

Because the **core catcher** technology is new, doubt was raised concerning the experience with this technology. Aszódi mentions that this core catcher is already in use at NPP Tianwan/China. At NPP Kudankulan/India and NPP Leningrad/Russia it will be used, too. He also referred to the RASPLAY tests and NPP Hanhikivi/Finland.

Aszódi also explained the containment system that will be new in Europe: the inner containment is covered with welded steel-plates. The NPP will be constructed to withstand the crash of a big airliner, a tornado and a jet fighter.

For seismic safety features, Mr. Katona answered that the new units will be able to withstand a seismic event with 0.35g (for 100.000 years), and 0.25 g for 10.000 years.

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<sup>3</sup> <http://2010-2014.kormany.hu/download/7/d7/70000/Hungarian%20Energy%20Strategy%202030.pdf>

### *Severe accidents and (transboundary) impacts*

The Hungarian system uses for assessment of accidents four categories for design basis conditions (DBC) and two categories for design extension conditions (DEC). The DEC2-category, which has the most impacts according to the EIA Report, includes a nuclear meltdown, but the containment is supposed to stay intact. The frequency for DEC 1 is  $10^{-7}$ , for DEC 2  $10^{-8}$  per year.

This claim was received with very strong opposition from the audience. The discussion went on for a long time, but as expected without result. Members of the public and experts from the audience wanted Hungary to include a **more realistic source term**, and an **accident scenario with large releases**. Otherwise, results of the dispersion calculation and dose assessment are much too low to be plausible.

In the EIA report, only calculations for the neighboring countries have been made, but no results for Hungary outside the radius of 800m of the NPP. In the above mentioned additional documents, **assessments for impacts in Hungary** are said to be included.

**Dose calculations** have only been presented for effective inhalation doses, but not for effective total dose from all pathways and especially thyroid inhalation dose. Answering to a question if these missing doses have been calculated, the Hungarian side said that they do have all dose calculations.

### *Non-radiological environmental impacts*

The most important impact on the environment could be the thermal pollution of the Danube caused by the discharge of the hot cooling water.

Attila Aszódi explained that the temperature difference between inlet and outlet of the cooling water from the Danube will be maximal 8 degrees. The use of cooling water foresees the development of the next 100 years. If there is not enough water in the Danube, groundwater reservoirs will be used, and also fishponds.

### *Spent fuel and radioactive waste*

3.135 spent fuel elements will be produced during operation of the new NPP. They are not obviously waste according to A. Aszódi – **reprocessing** is an option.

Hungary is considering **several options**. In the meantime, **spent fuel will be transported to Russia for interim storage** according to an agreement between Hungary and Russia. Russia is ready to take in the spent fuel for interim storage and further conditioning. Another option is the **construction of a new interim storage in Paks** which should be operating for 50 + 5 years. This new interim storage will probably be constructed as a dry storage.

The **national waste management program** according to Dir 2011/70/Euratom was presented to the European Commission in time (August 2015). **After the Commission will have accepted it, the public will maybe get the possibility to participate.**

A question was raised about transport of the spent fuel to Russia: Will there be a route through Ukraine? There will be no transports in airplanes because the necessary containers are not available. **The spent fuel will be transported via Ukraine, but not through war regions.** Ukraine transports also fuel to Russia, therefore permissions are available.

For the audience, the proof of a safe waste management has not been given. It was very dissatisfactory to be put off to the national waste management program which is not public now and there is no date when it will be made public.

The amounts of radioactive waste that will arise during decommissioning were requested – no answer on this.

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