



Announcement

25 August, 2022

The HAEA issued the construction license to Paks II. Ltd.

On 25 August 2022, the Hungarian Atomic Energy Authority issued the license for the construction of units 5 and 6 to Paks II Ltd. The construction licensing procedure started on 1 July, 2020. The purpose of the construction licensing procedure is to verify that the nuclear power plant to be constructed complies with the relevant legal requirements.

Accordingly, in the license application, Paks II. Ltd. had to prove that the nuclear facility can be constructed and operated safely with the technical solutions presented in the design documents, the site characteristics were fully taken into account.

During the licensing procedure, a number of technical issues must be examined, so in order to efficiently organize HAEA's work, experts evaluated the hundreds of thousands of pages of documentation (Preliminary Safety Analysis report - PSAR - of appr. 37.000 pages, supporting and supplementary documents of appr. 40.000 pages, background documents requested during the procedure of more than 200.000 pages) in 15 specialized evaluation groups based on a separate work plan.

The comments went through a systematically documented, multi-level control process that grounded the authority's decision from professional and quality point of view.

During the licensing procedure, the HAEA requested several times for supplementary documents and information according to the provisions of the Act on Atomic Energy. This was necessary for the HAEA in order to be able to make sure whether the application meets all the necessary conditions prescribed in the nuclear safety regulations required for the construction license.

During the procedure, the HAEA also involved external experts, and several meetings were held with Paks II. Ltd. to clarify the facts.

According to the Act on Atomic Energy in the procedures for licensing of the construction of nuclear facilities, a public hearing must be held before the decision is made in order to get to learn the public's opinion. According to the law applicable during the state of emergency, the public hearing had to be held electronically without the personal appearance of the persons involved. In accordance with the above, the HAEA held an electronic public hearing between 4-18 March, 2021, during which interested parties could submit questions, comments and opinions related to the case to the e-mail address created for this purpose. During the electronic public hearing, more than 150 questions and comments were formulated by NGOs, members of the Parliament, citizens and the press. The HAEA published the answers in its written announcement.



During the preparation of this decision, the HAEA examined all the suggestions received during the electronic public hearing and compared them with the documentation submitted by the Paks II. Ltd. In great extent such suggestions were formulated that HAEA inherently examined during the procedure as requirements arising from the Nuclear Safety Codes. Overall, it can be stated that during the public hearing no new aspects arose, which were not covered either by the construction license application or the technical issues raised in the licensing procedure of the HAEA.

In order to ensure that the new units meet the highest international requirements, Hungary also requested the International Atomic Energy Agency (IAEA) to review the documentation. The IAEA missions reviewed the PSAR, which form the basis of the construction license application and the Probabilistic Safety Assessment. It is important to emphasize that the IAEA's comments were in line with the HAEA's findings. The suggestions and recommendations made in the IAEA's reports are treated by the HAEA as relevant international experience from the point of view of nuclear safety, which by making its decision HAEA took into account as follows:

- recommendations and suggestions related to the project's current life cycle phase have been incorporated into the HAEA's decision,
- certain findings and comments can be utilized in a later implementation phase, HAEA will return to them later.

Significant aspect determining the entire construction is that the construction works must not have a negative impact on the nuclear safety and physical protection of the Paks Nuclear Power Plant, which is operating next to the construction area. The HAEA treats the nuclear safety of the Paks Nuclear Power Plant operating next to the construction site, as well as of the Spent Fuel Interim Storage Facility, as a key aspect that determines every phase of the construction. Therefore, HAEA continuously monitors and evaluates all activities that may affect the operation of the four units currently in operation. Before and during the construction and during the operation of the new nuclear units, a comprehensive monitoring system jointly operated by the concerned licensees must be operated, which is capable of measuring and evaluating all effects being important from a nuclear safety point of view (e.g. geotechnical, hydrogeological data) and which also creates the possibility of intervention, when certain criteria are met, thereby guaranteeing the safety of existing, operating nuclear facilities next to the units under construction. During the procedure, the HAEA dealt in detail with, among others, the geological characteristics of the site and the issue of the earthquake hazards. The evaluation of potential impacts of earthquakes as a source of hazard is a question of great importance relevant to the protection against earthquakes of the units to be built or in operation. In addition to the regular Hungarian-Austrian bilateral consultations, in view of the special Austrian interest, related to the licensing procedure the HAEA provided the opportunity for extensive professional consultation between Hungarian and Austrian geological and geotechnical experts on issues concerning the site. During the construction licensing

procedure, no new circumstance or data arose, which could question the suitability of the site.

From the geological characteristics of the site, it can be concluded that no such significant permanent surface displacement can be expected at the site that could affect the safety of the nuclear facilities to be constructed, or of the nuclear facilities already operating there.

The condition for granting of licenses of HAEA is always the fulfillment of the requirements contained in the Nuclear Safety Codes. The HAEA made its decision based on a comprehensive and detailed assessment of the facts available, as well as on the examination of the fulfillment of legal requirements. During the procedure, the HAEA examined and evaluated analyses and technical documents submitted by Paks II Ltd., and also took into account all the relevant information available. During the procedure, the HAEA stated that the submitted application meets the Hungarian legal requirements from the point of view of nuclear safety. According to the law currently in force, the nuclear safety authority can define conditions and obligations in its decision if this is necessary to ensure the safety of the nuclear facility.

In addition, the HAEA can designate retention points in its decisions, including the construction licensing procedure, which determine the planned inspections related to certain work phases. The HAEA determined the submission and acceptance of the updated PSAR to the licensee as a retention point in view that the construction license application submitted in June 2020 reflects the state of the planning process of the new blocks as of the end of 2019. Due to the nature of the investment, the development of detailed design documents continued during the assessment of the construction license application. The PSAR and its supplementary documents submitted with the construction license application must be updated in order to handle the comments made during the evaluation of the application and to take into account all relevant information arise in the meantime.

HAEA orders Paks II. Ltd. to meet – among others – the following regular and ad hoc reporting obligations:

- ongoing and expected design and on-site activities,
- suppliers' qualification and evaluation activities,
- the revealed non-conformities, as well as events with impact on safety,
- changes in construction schedules,
- immediately reportable events (e.g. fires on site, serious work accidents),
- events that hinder or limit the activities of the main constructor or suppliers.

The license includes the official stance and consent of the environmental protection, mining, fire protection and disaster management co-authorities. In accordance with the



legal framework in force, the preliminary Nuclear Emergency Response Action Plan related to the new units was also approved in the construction license procedure.

The construction license is valid for 10 years. It is important to point out that the construction license is a complex, facility level license, which applies to the acceptance of the complete technical concept and safety solutions of the nuclear power plant. The construction license alone does not entitle the licensee to start the construction works, for those additional specific (thousands of) permitting procedures will be necessary on the level of system, system component and building.

Exceptions to this are building permits related to site preparation activities and manufacturing permits of long lead items, which could be issued before obtaining the construction license (the issuing dates in brackets):

- the test soil stabilization permit (July 20, 2021);
- the test cut-off wall permit (July 23, 2021);
- permit for soil excavation (up to -5m) (October 8, 2021);
- the permit for the cut-off wall construction (May 26, 2022);
- the soil stabilization permit (June 10, 2022);
- core catcher manufacturing permit (June 30, 2022).

Regarding the still ongoing procedures, taking decisions related to such license applications submitted under the construction licensing procedure become only possible from the date of the issuance of the construction license.

In the construction area, site preparation and erection of construction-support base buildings are currently in progress. During the site preparation works, the HAEA regularly inspects the compliance with the requirements of the issued permits, the relevant legislation, and the nuclear safety regulations. HAEA expects to receive additional permit applications (applications for building and use permits).