

# Radioactive Waste and Spent Fuel Management in Hungary – Certain Uncertainties

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The status of radioactive waste and spent fuel management in Hungary has not changed or improved recently, and we are not closer to the solution than we were a couple of years ago. Although there are two current issues that required the elaboration of a strategy and work plan, still too many questions remain open.

The first issue is the Euratom directive on Radioactive Waste and Spent Fuel Management and the related National Program, that has to be elaborated by each member state.

The other issue is Paks-2. The EIA procedure of the new blocks has recently been closed, the environmental license was issued in October. Energiaklub, together with Greenpeace, appealed to the Environmental Protection Chief Inspectorate, where one of our main arguments was the unresolved question of spent fuel management. Our appeal is still under scrutiny by the authority.

Let's start with this second issue. Hungary wants to build two 1200 MW nuclear blocks without having a concept plan for handling spent fuel. The problem is even bigger: the environmental authority doesn't require to have one for the issuing of the environmental license. So the investment can be carried on, in spite of the fact that final storage might not be possible in Hungary.

But not only final disposal is the problem. A question that needs to be answered much sooner is the interim storage of spent fuel. The existing Interim Spent Fuel Storage Facility with the spent fuel of Paks-1 is technically not suitable for the new type of fuel of Paks-2. In the original EIA documents the interim storage facility is planned closely between one of the existing and one of the new blocks. This plan, however, poses a lot of safety and thus environmental questions, which have not been investigated by the EIA.

This summer an amendment was submitted by Paks-2 to the environmental authority, in which the location of the new blocks were shifted a bit to the north, thus the interim storage and the reactors are not so closely packed. However, this plan is still not reassuring, and its environmental impacts are still not investigated at all.

The other issue is the Hungarian National Program for radioactive waste and spent fuel management. This National Program, according to the directive, has to contain concepts, plans and technical solutions for radioactive waste and spent fuel management. So this needn't only be elaborated

because of Paks II, but also because of the EU regulations. The reference scenario is domestic deep geological disposal, however, not technical details can be found about it in the national program.

The national program also speaks about the interim storage of Paks-2 spent fuel. It says:

„It is important that the environmental impact study investigates the site’s environmental impacts together with the interim storage.” So it is not only Energiaklub saying this, but the national program as well. However, it never happened. Nevertheless, it would be crucial to know the exact and validated plans for the interim storage before the power plant is built, otherwise we can get in trouble, if we find out too late that the plan is not working.

According to the Hungarian-Russian framework contract of Paks-2, there is a theoretical possibility to take the spent fuel to Russia for technological storage. But whether it’s a real option, we will hear about it in the next presentation.

Article 10 of the Euratom directive is about transparency and public participation in decision making. Unfortunately, the Hungarian national program interprets this regulation very narrowly, by engaging only municipal associations around radioactive waste facilities. These associations are financed from the Central Nuclear Financial Fund. The NP does not address any other municipality, organization or the wider public, when it talks about transparency or public participation.

The directive contains instructions also on the cost assessment and management of radioactive waste and spent fuel. This is unfortunately highly neglected in the NP. It doesn’t contain calculations, and it doesn’t assess the timing of the costs and the risks associated with the management of the Fund. One of the major risks, also pointed out by the State Auditory Office, is that the money on the account of the Central Nuclear Financial Fund actually does not exist physically. It exists only on paper, but there are no actual savings. This will put a huge burden on future generations, when the majority of the costs arise with the final disposal of spent fuel and decommissioning.

The last but not least important question is the export of spent fuel to Russia. Based on a 2004 agreement, Paks can transport spent fuel to Mayak for reprocessing. This is also true for Paks-2. Theoretically. But currently there is no reprocessing facility in Russia which would be able to reprocess the new type of fuel of Paks-2.