

Nuclear Challenges in Slovenia/Croatia

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The official position of the government

- is that the Krško NPP operates within the limits of technical specifications. The availability factor in the 31st fuel cycle (from October 2019 to date) is 100%. Monthly transmission of more than 500,000 MWh of electricity to the electricity network. All security systems are capable of operating.
- In fact, the Krško NPP operates far beyond its capacity, for which it was designed and built. The 632 MW nuclear power plant built in January 1983 was increased to 727 MW (with an existing reactor vessel), the annual production of 3.72 TWh increased to 5.5 TWh in 2019 or planned 6 TWh in 2020, and they want to increase the service life of 40 years to 60 years. So, more power, more utilization and longer operation. With the same operational safety?

Economics versus security.

- Disagreements between the Slovenian and Croatian co-owners of NEK (NEK d.o.o. is divided into two equal business shares owned by the partners slovenian GEN energija d.o.o. and croate Hrvatske elektroprivrede d.d.) are constant, and judicial or arbitrary dispute resolution does not contribute to nuclear safety. The economic interests of the co-owners, which are otherwise perfectly legitimate, represent risky management and a reduction in nuclear safety.

Economics versus security.

- SNSA withdrew from this, at the expense of nuclear safety. To date, not all safety measures determined by the European stress tests of nuclear power plants have been taken. The measures were set in 2012, should be completed in 2016, but still today, in 2020, are not fully completed.

Impact of the co-ownership on nuclear safety.

- Co-owners (Slovene and Croat) enterprises neglect the question of nuclear safety, as they cannot agree on fulfilment of all security measures, that were requested after the Fukushima accident by the SNSA. By the decree ordered safety measures the NPP had to fulfil them until the end of 2016, but now we are in 2020 and they are not all fulfilled yet. There were applied several technical improvements, but all ordered measures are not fulfilled. Obviously the SNSA indulges in face of dictation of nuclear lobbies, which is even not hidden. In the Report 2019, the nuclear risks are mentioned as »challenges« (Report, page 5). Given the dynamics of the activities and actions of the bodies involved, the challenge remains how the Krško NPP will operate when the storage capacities for such waste in the power plant are filled and there is no disposal site.

Stress tests.

- The website of the SNSA has published the news that the Krško Nuclear Power Plant is the best nuclear power plant in Europe based on stress tests that all nuclear power plants in Europe had to pass after the nuclear accident in Fukushima, Japan. Nevertheless, they determined the upgrade. The measures, which should be completed in 2016, are still not completed.

Creating a directed public opinion.

- When one reads the statements of nuclear supporters on nuclear energy and when one thinks about the illegal expenses of the Krško NPP in the approximate amount of € 16.1 million, only one logical explanation comes to one's mind. There is a probable link between the statements of nuclear supporters and the illegal spending of money. A lie repeated a thousand times becomes truth. If we stay quiet. Whoever cares about the truth must not be allowed to spread lies.

One can see the traces of the nuclear mafia.

- We can hope that effective control protects us from the nuclear mafia. Based on the signs, however, we can assume that our society is not immune to the nuclear mafia. The Court of Audit <http://www.rs-rs.si/en/> has issued several audit reports. It assesses the effectiveness of strategic planning for the long-term use of nuclear energy for electricity production and planning for electricity production in nuclear power plants. The document "AUDIT REPORT Efficiency of strategic planning of long-term use of nuclear energy for electricity production and planning of electricity production in nuclear power plants 2019" identified a number of irregularities related to the planning of Krško NPP JEK2.
- Irregular consumption of € 16 million was also identified, of which 10 MIO € paid out under table, illegally, without a public tender.

Public opponents of nuclear energy in Slovenia are target of multiple forms of discrimination

- It goes from censorship in public media up to loss of employment, These are the target of various forms of discrimination: from censorship in the media, job loss, to harassment of their family members and close relatives in seemingly random inspection procedures. The result is their withdrawal from expressing their opinion publically and avoidance of public participation in protest rallies, announcements and debates. This is especially true for nuclear-infected environments, e.g. municipality of Krško. The membership of the country in the EU since 2004 has not changed the situation and the EU lacks effective steps against violations of free speech (and opinion) and against violations of rule of law.

Public opponents...

- The NPP management withdrew from the intention set in the ReNEP that the Republic of Slovenia will support the joint construction of a nuclear power plant on the territory of the Republic of Croatia by 2015 on the basis and according to the existing principles.

The NPP NEK operates contrary to the interests of Slovenia.

- The NEK is located in Slovenia and is half Slovenian and Croatian owned. Although it would be expected that Slovenian legislation would be applied for the operation of the Krško NPP and that Slovenian interests would be protected, this is not the case. The Republic of Slovenia is financially liable for nuclear damage if it exceeds the insured value in terms of amount, Croatia is not. Due to the unpreparedness of the co-owner of the Croatian Krško NPP, not all the safety measures required by the Slovenian Nuclear Safety

Cont.

- Administration due to the accident in Fukushima have been completed and should have been completed. The security upgrade program, which should be completed by 2016, is only half-implemented.
- Obviously, the Krško NPP is negotiating with the SNSA, instead of complying with its decisions! As if the (non) completion of the safety measures does not affect the nuclear safety.

There are close contacts between politics and the nuclear lobby.

- The connection between politics and the nuclear lobby is always close in Slovenia, relations are indecent, on the verge of corruption or a step further. Personnel is transferred from the ministries to the nuclear power plant and vice versa, the family and political ties of individual prominent actors are close, the consequences are known, but there is no effective control. Although it seems that the general will of Slovenian citizens is unfavourable to nuclear choice and the use of nuclear energy, all coalition parties and most opposition parties are promoting a nuclear choice, extending the operation of the Krško NPP for 20 years and building JEK2.

Nuclear energy is covertly promoted.

- In the Energy Act EZ-1, nuclear energy is hidden under the name "low carbon technology". Even in the EKS proposals and in the NEPN, nuclear energy is privileged (continued exploitation of nuclear energy), without explanation and without reason.

We have lack of dialogue.

- There is no dialogue in society about the future use of nuclear energy. The media publishes daily pro-nuclear articles, even if they are inaccurate or misleading, any critical articles are rejected. It is similar on social networks; anonymous promoters of nuclear energy are very loud.
- There is no LILW repository yet, although construction has already been confirmed. The selected LILW storage technology is controversial (in groundwater) and it is supposed to be built until 2023.

Seismic safety.

- The location of the Krško NPP is at a tectonic fault, which must be considered active. Therefore, it is not appropriate to build either the LILW storage facility or the JEK2 at these locations.

Carbon decay.

- Electric power is low-carbon if only the operation of a nuclear power plant is taken into account. In the evaluation of the entire nuclear fuel cycle, electricity from nuclear energy has a similar carbon footprint as fossil fuels (Benjamin K. Sovacool, Jan Willem Storm van Leeuwen).

Statement “Spent nuclear fuel is a valuable raw material” is wording.

- It is based on the delusion of nuclear alchemists, only to look for energy instead of gold. Their chatter was exposed by Frank von Hippel in his book Plutonium, 2019.
- There is unresolved issue of spent nuclear fuel. Warehouses for HLW and TRUW are expected to be built in year 2103. Location is unknown, storage technology is unknown, value of the investment is unknown, there is no money, and the facility must be built for safe operation for 100,000 years. Can nuclear experts imagine how long this is? Do they care about anything longer than their lives?

No, nuclear energy is not cheap.

- Nuclear energy can be cheap if only the current operation of a nuclear power plant is taken into account, and if the operation of a nuclear power plant has priority over cheaper renewable energy sources. Taking into account the entire nuclear fuel cycle, from mining, fuel reprocessing, nuclear power plant construction, operation, insurance to decommissioning and permanent storage of nuclear waste, nuclear energy is the most expensive and risky. Nuclear energy is like a loan that will be repaid by descendants.

No, the technology of building a nuclear power plant is not simple.

- Proponents suggest that new nuclear power plants can be made in domestic workshops or they would agree with a foreign manufacturer on the installation of test, prototype power plants of the new generation. The proposals are so absurd that they would be overlooked if they had not been disseminated by eminent experts and by the most eminent Slovene Institute Jožef Štefan.

Nuclear energy moves us away from a sustainable, democratic society.

- In fact, the closure of nuclear power plants will be an opportunity for prosperity, for building smart grids, for investing in the integration of all renewable sources, for a democratic, sustainable and efficient society.

Abbreviations

NEK: NPP Krško

JEK2: planed nuclear power plant NPP Krško 2

NPP: Nuclear power plant

SNSA: Slovenian nuclear safety administration

Hrvatska elektroprivreda d.d.

ReNEP: Resolution on national energy program

EZ-1: Energy law

EKS: Energy concept of Slovenia

NEPN: National energy and climate plan

LINW: Low and intermediate level waste

HLW: High-level waste

TRUW: Transuranic waste