

Comments from Environmental-Cultural Association 'Wspólna Ziemia' (Common Earth) within Finland's public authorities' public consultation procedure regarding the draft national programme on management of spent nuclear fuel and radioactive waste and regarding the related draft EIA report, both dated 5th August, 2021

announced by STUK & TEM on 6th August, 2021

with the deadline for submitting comments: 10 September, 2021

We are a grass-roots, pro-environmental NGO based in Poland, working at both the national and European levels on climate protection policies, issues and solutions, dealing also with monitoring, assessing of, responding to and raising the large public's awareness regarding various types of risks pertaining to nuclear energy policies, topical plans, investment projects (proposed and incumbent), developments, etc. both in Poland, in the countries of the region and in entire Europe, including cooperating within the 'Nuclear Risks Public Control' network.

Firstly, we appreciate that at least there has been some intention to make summaries of both documents available also in English versions so that non-Finnish speaking entities such as our organization from outside Finland can participate within this national procedure - we may seize this opportunity, while conducting of (a) transboundary procedure(s) (TB) (with some countries) for these concrete documents is (are) not certain, and the practice to date shows that TB procedures or public consultations in similar cases are often not admitted in some countries on various grounds, including too big a distance of the countries affected, and concrete installations not covered by such plans (which, the latter, are deemed too general in that regard, in the opinion of respective Espoo's or nuclear-related national decisive authorities). On the other hand, only those very short summaries are available as documents in English which renders us impossible to learn and comment on the important details of the proposal contained in them.

Secondly, however, these summaries do not provide information on two critical issues that are of high relevance for the public throughout Europe – whether if safety of copper canisters that will be used in the future spent nuclear fuel repository in Onkalo and, thus, the safety cases of the disposal for spent fuel resulting from the lifetime extensions of nuclear power plants' (NPPs) units located in Finland, possibly granted in the future, can be proven.

Research results have shown that copper may corrode even in an oxygen-free environment. This, together with other corrosion mechanisms and mechanisms that can provide stress on the copper canister, means that the long-term integrity of copper canisters cannot, most likely, be guaranteed with this status of research and scientific knowledge. The Swedish authorities therefore have not, for now, approved the KBS-3 method's use in Sweden, while they have demanded more research. The Swedish Radiation Safety Authority is presently evaluating what appears to be severe anoxic corrosion, including pitting, which were observed in the 20-year old experimental packages from the so-called LOT experiment in the Äspö Hard Rock Laboratory. Thus, the question arises how Finland intends to respond to these new contradictory facts suggesting that an unproven technology would be approved.

The EIA report on the national programme on the management of spent fuel and radioactive waste to be adopted should definitely reflect and assess the results of the research on copper material to be used for the canisters in-depth and compare them with the Swedish results.

Next to that, in the EIA report on the lifetime extension of the NPP Loviisa's units 1 and 2, it became clear that the necessary interim storage facility for the spent fuel is not available, yet. An additional safety problem is the continued use of a wet storage system, a technology that is far from being state-of-the-art. These questions should be discussed in the EIA report, and lifetime extensions for the applying NPPs in Finland should not be granted unless safe disposal for the spent nuclear fuel to arise is scientifically - and, at the same time, logically and firmly - proven.

[EoL]