NGO comment on the EIA procedure for the planned lifetime extension of NPP Borssele/Netherlands

Submitted via the Austrian Espoo Contact Point: Ursula.platzer@bmk.gv.at

Submitted via City of Vienna: post@ma22.wien.gv.at

11 Oct 2024

The signatories welcome this transboundary Environmental Impact Assessment (EIA) in the light of the discussion in the framework of the Espoo Convention concerning a binding EIA for NPP lifetime extension projects.

The Borssele reactor is in operation since 1973, i.e. already for more than 50 years, and is one of the oldest NPPs in the world. It is not clear from the EIA documents for how long the lifetime extension is foreseen. In the scoping documents, 10 or 20 years were named as possible extension periods. This would result in a lifetime of 60 or 70 years.

Alternatives:

The Espoo Convention and the EIA Directive require the assessment of alternatives of a project. But the EIA documents do not present any alternative.

However, **we demand that the EIA report presents energy production alternatives to the lifetime extension**. In response to the climate crisis, energy efficiency and energy saving measures must be the most important options for an alternative scenario, new electricity production should be based on renewable energies with its steadily decreasing costs and faster availability.

A long-term prognosis of the Dutch energy needs should be part of the EIA Report.

Risks of long-term operation of the reactor type

The design of the reactor is from the 1970ies and already outdated. It was designed for 40 years of operation (until 2013). Therefore, the period safety review (PSR) is of uttermost importance to identify if operation of the old reactor can even continue. But the results of the fourth PSR that was finished in 2022 is not part of the EIA documents – this leads to the suspicion that the identified weaknesses from the PSR will not be settled before the lifetime extension is approved.

Risks of the site

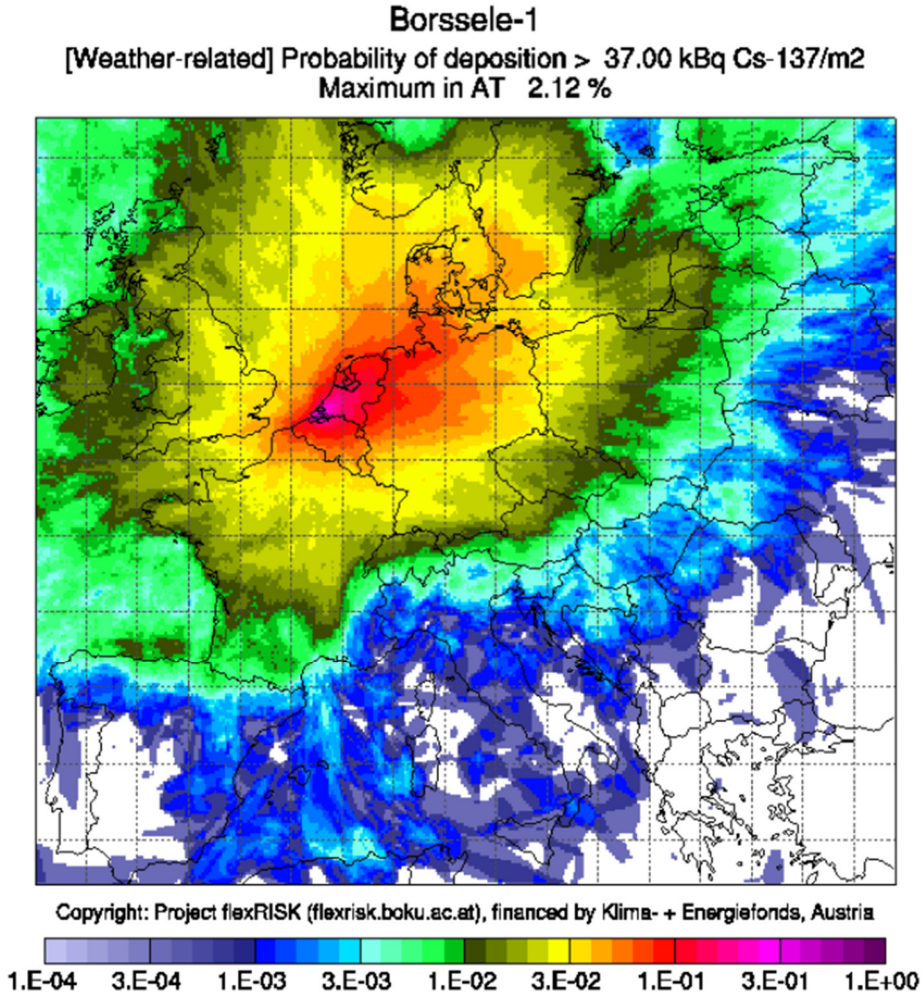
Borssele is sited at the coast, sea level rise in connection with flooding is an important risk, together with increasing sea water temperatures and increase of extreme weather events. Also, the earthquake risk for the site needs to be assessed. But none of these risks have been discussed in the EIA documents, and it is not mentioned if they will be researched before the license will be issued.

Risk of severe accidents

The most important question is: Can an accident occur in the old NPP that has significant impacts on the surrounding areas, and also on other countries?

Even if a severe accident has a very low probability, the risk is not eliminated. The EIA needs to provide data on the assessment of severe accident consequences and on respective source terms.

The research project flexRISK shows that a steam generator tube rupture with containment failure in Borssele could release a large part of its radioactive inventory, assessed with 31.87 PetaBecquerel Cs-137. The following flexRISK figure shows the weather-related risk for Europe to be contaminated with Cs-137 above 37 KiloBecquerel Cs-137 per m^2 in case of such an accident happening.



Under unfortunate weather conditions, many countries in Europe could suffer a high Caesium contamination of more than 37 kBq/m^2; the weather-related risk for Austria is 2.12%.

Safety standards for new NPPs cannot be implemented for the old plants. The risk of a severe accident is increasing with the age of an NPP. But not only material and design problems occur. The risk of terrorist attacks has increased, and the old plants are not fit to withstand modern threats. Unfortunately, it cannot be excluded any longer that NPPs become targets in a war.

The EIA phase 2 shall include an assessment of how the risk changes with increasing age of the plant and due to new threats like terror, war, and climate change phenomena.

The EIA phase 2 shall also include accident calculations with the highest source term for which the risk is not zero, and dispersion calculations for all of Europe.

Nuclear waste management

Before any lifetime extension it needs to be ensured that there is enough capacity in interim and final disposals for all types of radioactive waste. The planned start of operation of a final repository in 2130 results in the need for long-term interim storage for both high level and intermediate and low level radioactive waste. This is a very long timeframe compared to the practice in other EU countries. The EIA needs to specify how safety and security of all interim storages and canisters over more than 100 years will be ensured.

We are looking forward to receiving information, if and how our recommendations are taken upon for EIA phase 2 and in the EIA decision.

With best regards