


Joint Project Working Paper: “The impacts of climate change on nuclear risk and supply security”

Climate crisis: why nuclear is not helping. Vienna, 08 Oct 2019

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Joint Project – Nuclear Risk & Public Control

- In the Joint Project, European NGOs and research institutions cooperate since 2003 on safe and sustainable energy issues with a focus on anti-nuclear activities in Central and Eastern Europe.
- More information on Joint Project : www.joint-project.org/
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Focus in 2019/2020: Working Paper

- Title: “The impacts of climate change on nuclear risk and supply security”
- Examine potential impacts of climate change phenomena on the risk of new and old NPP as well as on planned ones
- Inform NGOs and the public about the impact of climate change and give recommendations for political work
- Working Paper will be presented at Nuclear Energy Conference in Prague in spring 2020

Gradual climate change

- ▣ INRAG study on risk on lifetime extension of old NPP – chapter on climate change impacts (Helga Kromp-Kolb)
- ▣ Higher temperature: decreases in efficiency, cooling water
- ▣ Higher or lower precipitation: per degree global warming plus 7-10% precipitation
- ▣ Higher wind speeds and more fog: additional salt spray, dust & dirt
- ▣ Sea level rise: up to 2.4 m until 2070

Extreme weather events

- ▣ Floods
- ▣ Heat waves; can result in growth of plants/biological material (“biofouling”)
- ▣ Droughts
- ▣ Extreme cold conditions, ice
- ▣ Heavy loads of rain or snow
- ▣ Extreme winds and storms
- ▣ Super storms in coastal areas
- ▣ Lightning
- ▣ Forest fires, smoke and ash
- ▣ Landslides

Environmental Impact Assessments (EIA)

- Climate change phenomena become more important in EIA procedures
- Amended EIA Directive (2014/52/EU):
 - Need to assess impacts of climate change on the project
 - Has not been transpositioned adequately by all Member States until now
- If an EIA becomes obligatory for lifetime extension of NPP, climate change impacts will have to be assessed.
- Working Paper shall help us in EIA procedures.