



"Stress test" specifications proposal by the WENRA Task Force 21 April 2011
Comments by The Greens/Efa Group in the European Parliament
5 May 2011

The "stress tests" as proposed by the task force of the nuclear energy regulators authority (WENRA) will not give a comprehensive and transparent risk assessment of the European nuclear installations and will thus not meet the goal set out by the European Council.

I Background

The European Council of March 2011¹ *"calls for work to be taken forward as a matter of priority [...]"* reviewing the safety of all nuclear installations on the basis of a *"comprehensive and transparent risk assessment ("stress tests")"*. This should be done in the light of the Fukushima accident.

II. Preliminary concerns and comments

As regards the proposed "stress tests" specifications as of 21 April 2011, we would like to point out our preliminary concerns and comments in the context of the March 2011 European Council's conclusions:

- 1. The WENRA specifications do not meet the goal of the conclusions adopted by the Council.** A report made under these specifications will not provide the European Union with a comprehensive overview of the risks of the European nuclear power plants.
 - Most of the events that may lead to a situation comparable to Fukushima, i.e. all internal events, fire-scenarios, human faults, terror attacks are not under the scope of these "stress test". Especially the actual threat of an intentional airplane crash on a nuclear power plant is not considered
 - It is not required to list those incidents that the reactor is not prepared for.
 - Under specifications proposed by WENRA the design of the plants will not be checked against the current state of the art. Especially the

¹ European Council, - 24/25 March 2011 – Conclusions;
http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/120296.pdf:

independence of the safety levels of the defence-in-depth concept from each other as one of the crucial questions of safety will not be investigated.

- The quality of the material of pipes, of safety relevant components as the reactor vessel, of controls and instruments are not under investigation. The quality varies in a wide extent and it makes the difference for the safety of a plant.
- Degradation effects especially caused by the aging of plants / material fatigue are not considered,
- The operational experience of the plants, the number of safety relevant events, their safety significance (so called “precursor studies”) that give information about the practical risks are out of focus.
- The safety management of the plants that is of utmost importance for safety is out of the scope. Even not foreseen is a report whether a safety management corresponding to the state of the art is established and functioning.

2. The method of the proposed “stress test” and the process do not comply with necessary standards for nuclear risk assessments.

- The operators are not obliged to reveal the deficiencies of their plants against the current state of the art. There is no question on the existence, the quality and actuality of the safety case that is fundamental for the safety of the plant. The licensees may refer to documents of their twenty, thirty years or even older licenses.
- The prediction of the plant’s behaviour in the case that all foreseen safety systems are lost will rely on the engineering judgements of some experts, especially those of the licensees. Engineering judgements depend strongly on elements that cannot be proven or be checked, depend especially on the “questioning attitude” of the engineers and therefore are more or less arbitrary.
- There is no peer review process of the results that could give a certain balance against the lack of independence of the whole “stress test”. The same experts that have been responsible for the safety of those plants in the past at least partially will have to check their own practice, their own convictions and statements about safety.

3. We are concerned that, without really actively organized publicity and an open and qualified peer review process, the limited WENRA approach will not lead to trustful results. Furthermore, we do principally believe that broad participation and transparency are issues of utmost importance. In that respect, we urge you to make public all contributions you might receive not only under this consultation process but also later in order to create continuous involvement of independent experts, civil society and the public as a whole.

III. Conclusion

The proposed stress test will not give a comprehensive and transparent risk assessment of the European plants.

The proposed “stress test” will be a description and to some extent an estimation of the possibility of the individual plants to withstand a few – never the less important - extreme external events (in particular earthquakes and floods). It will give nearly no information about the reliability of the protection measures of the plants to prevent the supposed failures of the safety systems. It will give nearly no information about all those other scenarios and serious events that could lead to the same safety challenges as those supposed extreme events. Within this limited scope and taking into account the deficiencies of the method and of the process the report could give some new information on the robustness of individual plants and measures going beyond its design basis, in particular on:

- The identification of the step change in the event sequence under which the safety systems will fail completely (cliff-edge effects) and
- time limits until the failure threshold will be reached

The report requested under the WENRA specifications could only be a very first step for more transparency about the nuclear risk in Europe. Taking into the time constraints the specifications and the limited scope of the WENRA approach the specifications should at least cover:

- protection measures against an airplane crash and terrorists acts
- information about the applied safety criteria and their deviations from the current state of the art for modern plants and safety measures to be taken by the licensee / operator to reach the state of the art
- full information about the applied basis accidents the plants are designed for and to what extent the safety concepts and the designs do not cope with the current state of the art
- documentation on the latest actual systematic and comprehensive analysis of aging effects
- information about the used data and documents whether they have been technically proven by the nuclear authority and in which way that has been done.