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The European “Stress test” for Nuclear Power Plants

Expertise drafted by Büro für Atomsicherheit

The most simple, but no less important, lesson to come out of the Fukushima accident is that nuclear accidents really occur - even in developed industrialized countries. The lesson is not a new one; but it has been out of the public domain for some time: Each nuclear power plant operates with a probability of a core melt. The operation of nuclear power plants is always – without any exemption – connected with the residual risk of an uncontrolled nuclear accident. Nuclear safety in the absolute sense does not exist. To say “a nuclear plant is safe” only means that the residual risk is accepted. What was a tsunami in Japan could be the combination of a fire incident, human error, leaking pipes and the clogging of the cooling circuit in a nuclear power plant in Europe or in the United States. It could be any kind of dangerous combinations, anywhere in the World. . An uncontrollable amount of unforeseeable combinations of errors – technical and human ones – cannot be assessed and excluded in advance. It therefore would be a great misunderstanding to believe that a “Stress test“ could make nuclear power plants safe. However a sound safety assessment can help to reduce the nuclear risks.

The “Stress test” for Nuclear Power Plants of the European Union formally only affects the member countries of the European Union. The defined “Stress test” specifications and their outcome will eventually serve as an important reference for nuclear safety assessments around the world. A clear understanding of its structure and contents will be required to assess its value for improving nuclear safety worldwide.

The first part of this study considers and analyses the “Stress test” specifications of the European Nuclear Safety Regulators Group (ENSREG) for nuclear power plants in Europe. These “specifications” are the basis for the current investigations of the operators and the nuclear authorities of the member states. This study asks how far these investigations meet the re-quirement of the EU Council for a comprehensive risk assessment of the European Nuclear Power Plants (NPP).

The second part of this study recommends measures to compensate the deficits discovered through the analysis in part one.

Read the full study drafted by Renneberg Consult UG, Wolfgang Renneberg
www.atomsicherheit.de in cooperation with intac GmbH:

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