

Peer review and implementation process of EU stress tests

Monday 27 October 2014 14:00 (20 minutes)

The accident at the Fukushima Daiichi Nuclear Power Plant in March 2011 was a milestone in nuclear industry that has once again emphasized the importance of responsible and conservative decision making processes among all stakeholders involved in assuring nuclear safety. The lessons learned are showing how important is the preparedness to worst scenarios by the NPP operators, how crucial is critical review and assessment by the regulatory bodies and certainly how inevitable is excellent understanding of natural phenomena based on the best available knowledge base.

The Fukushima accident in March 2011 represented a big challenge to everybody involved in nuclear safety. The first meeting of everybody involved with nuclear safety in EU was held already 4 days after the tsunami in Japan. The decision was made to start immediate campaign for analysis of vulnerability of European NPPs to external events and for implementation of potential improvements. The initiative was soon endorsed by the European Council. WENRA and ENSREG have prepared comprehensive specifications for so called Stress Tests, which were endorsed at the end of May 2011. During the rest of 2011 operators of all NPPs in EU, Switzerland and Ukraine and national regulators have spent hundreds of man years analysing vulnerabilities of their facilities and preparing improvement measures. By the end of 2011 national reports were made public. In spring of 2012 the intensive Peer Review process was going on where a group of about 80 regulators has reviewed all national reports, visited selected facilities and prepared recommendations to national regulators. The final report of the Stress Test campaign was endorsed by ENSREG on 25 April 2012 and was later delivered to the European Council. The Peer Review Team has determined that a lot has been done in all NPPs in Europe and that there are also plans for further long term improvements. The report is highlighting four major recommendations on European level (need for development of common reference levels about protection against external hazards, importance of containment integrity, importance of Periodic Safety Reviews and importance of severe accident management preparedness). 17 National Peer Review Reports are introducing additional recommendations to each national regulator.

ENSREG has approved a special Action Plan on 1 August 2012 to make sure that the conclusions from the stress tests and their peer review result in improvements in safety across European nuclear power plants. Each country has prepared its own National Action Plan. Their implementation will be cross-checked during another peer-review process planned for the first half of 2013. This will ensure that the recommendations and suggestions from the stress test peer review are addressed by national regulators and ENSREG in a consistent manner.

In parallel with the stress test campaign in 2011 WENRA has started the development of additional Reference Levels addressing issues related to the safety against external events. After almost three years of preparations and discussions with stakeholders new reference levels were approved in July 2014. In next years all European nuclear countries will harmonize their nuclear safety related legislative framework with these Reference Levels.

During the Stress Test campaign it was becoming more and more obvious that improvements are needed also in the area of emergency preparedness off the nuclear sites, i.e. in the wider surroundings and on national levels. Special task force under the umbrella of WENRA and HERCA is currently working on harmonization nuclear emergency preparedness arrangements in different countries.

Country or International Organisation

Slovenia

Author: Mr STRITAR, Andrej (Slovenian Nuclear Safety Administration)

Presenter: Mr STRITAR, Andrej (Slovenian Nuclear Safety Administration)

Session Classification: Session 1: Oral Session

Track Classification: The role of TSOs in Relation to the Fukushima Daiichi Accident