

Frequently asked questions --

1. What are the Stress Tests?

Nuclear stress tests are defined as a targeted reassessment of safety margins. The stress tests target areas from the preliminary lessons learned from the Fukushima accident.

2. Why are the stress tests being conducted?

The accident at the Fukushima nuclear power plant in Japan on 11th March 2011 triggered the need for a coordinated action at EU level to assess the robustness of nuclear power plants in the event of extreme natural hazards, identify strong features, weaknesses and potential further improvements. On 25th March 2011, the European Council requested that the safety of all EU nuclear plants should be reviewed on the basis of comprehensive and transparent risk and safety assessments.

3. Have stress tests ever been performed before?

The safety of nuclear plants is continuously assured and controlled by regulators. The current stress tests are complimentary to the regulatory oversight, they are exceptional and the first of this nature and magnitude.

The stress tests are a unique opportunity to globally address the issue of robustness of European nuclear power plants beyond design basis external hazards. They go beyond design basis safety evaluations performed during the licensing process and periodic reviews. The aim is to assess whether safety margins are sufficient to cover various extreme unexpected natural events. All 14 Member States operating nuclear power plants (NPPs) and Lithuania (where NPPs are being decommissioned) provided national reports to the EC by end 2011. From neighbouring countries, Switzerland and Ukraine sent such reports. These 17 reports are now subject to peer reviews to be completed by end April. The consolidated EC report is to be presented to the European Council at the beginning of June 2012.

4. How are the stress tests performed?

The stress tests consist in three main steps: a self-assessment by licensees, followed by an independent review by the national regulatory bodies, and by a third phase of international peer reviews. The international peer review phase consists of 3 steps: an initial desktop review, three topical reviews in parallel (covering external initiating events, loss of electrical supply and loss of ultimate heat sink, and severe accident management), and seventeen individual country peer reviews.

5. Where can I find more information on the stress tests and peer reviews?

The stress test specifications, the peer review specifications, the national reports as well as other background information related to the public meeting are available on the ENSREG web site.

<http://www.ensreg.eu/EU-Stress-Tests>

6. What are the products of the stress tests and where can I find them?

The first step of the stress test was the operator self assessment. The results of the self assessment were submitted to the national regulators. Many of the operator self-assessment reports are available on the web sites of the national regulators. The websites for the national regulators can be found on the ENSREG website.

<http://www.ensreg.eu/>

The national regulators prepared a report and these are all available in English on the ENSREG web site and in the national language on the website of the national regulators.

The peer review will also generate a report with the overall European conclusions as well as the review results for each country. This report will be written in English and available on the ENSREG web site at the end of April.

7. How were the board and reviewers selected?

Peer review team members were designated by national regulators and from the Commission. Details of the peer review Board, Topical Review team and Peer Review Teams are on the ENSREG website <http://www.ensreg.eu/EU-Stress-Tests/Background-and-Specifications>

8. How competent are the stress test peer reviewers in technical areas?

Stress Test Peer Reviewers were designated by national regulators and most are experienced regulators while others are scientists or consultants affiliated with regulators. The diversity of backgrounds improves quality of the review. Additionally; the European Commission contributed experts. With over twenty participants in each topical review team and eight participants on the country review teams, there is plenty of experience in the technical areas.

9. The stress tests have no specific acceptance criteria. Is there an agreed process?

ENSREG with the Western European Nuclear Regulator's Association (WENRA) developed the stress test specifications. The same stress test specifications will be applied to every reactor in Europe and subject to a peer review. Although there are no specific acceptance criteria regarding how much margin is necessary, the peer review report will identify strengths, weaknesses and recommendations for improvements.

10. How can this effort review over 150 reactors in a few weeks?

The purpose of the peer reviews is performing a targeted reassessment of margins. The focus of the stress tests and peer review is the lessons-learned from Fukushima. Detailed design reviews are the responsibility of the national regulators. In the time frame provided, the peer reviews will focus on the areas where lessons were learned from the Fukushima accident.

11. The stress test reports have noted that some significant improvements are needed – why are we not shutting these plants down instead?

Shutting a plant down is the responsibility of national regulators. The objective of the peer review is to improve safety, ensure that no important issues have been overlooked and give national regulators information for consideration of good practices and further improvements.

12. The EC said the stress tests would be 'comprehensive'. Many aspects of nuclear safety like training, quality and procurement are not addressed. Why not?

The stress tests are not a comprehensive review of all aspects of nuclear safety but a comprehensive review of the plants' ability to cope with extreme, highly unlikely natural hazards like the event at Fukushima.

13. ENSREG and the regulators conducting the peer review are not independent. The regulators have been saying the plants are safe for years. It is in their own interest to continue saying the plants are safe.

The regulators are independent of promotion and use of nuclear energy as required by the European Nuclear Safety Directive. The main lesson from the Fukushima accident is that extreme situations, which were judged too improbable to be taken into account, can have a significant influence on nuclear safety. This shows that plant safety and robustness has to be increased – regulators are taking this new lesson into account in their post-Fukushima actions.

14. How can we be sure that the assessments are performed effectively, objectively and impartially?

The public can review the reports of the plant operators, the reports of the national regulators and at the end of April the results of the peer review. Any member of the public can review the reports and come to their own conclusion and bring questions to the national regulators. Additionally, the peer review will provide another point of view regarding the quality of the national reports.

15. Are effects of a plane crash or terror attack considered?

The ENSREG specifications do not include an aircraft crash or a terror attack as an initiating event. It can be noted that, Topics 2 and 3 consider loss of safety systems and severe accident management independently from the initiating event. An aircraft crash or terror attack is an event that could possibly lead to such situations. Therefore, Topic 2 and 3 will be very useful in considering the consequences of aircraft crashes and terror attacks. Moreover, it was highlighted several times that, given the circumstances, the ENSREG strategy was to focus the stress tests on finding possible lessons learned directly relating to initiating events that actually caused the Fukushima event.

Additionally, security is directly addressed in the security track of the stress test process, which is dealt with by Member States' representatives in the Council of the European Union. To this end, an Ad-hoc Group on Nuclear Security has been set up and its report, where airplane crashes should be addressed, will be annexed to the final stress test report from the European Commission to the European Council.

16. Why is off-site emergency preparedness not included?

Due to short timescales and the responsibilities of the national regulators, off-site emergency preparedness is not covered under the stress tests specifications.

17. Will any plant be shut down as a result of the stress tests?

The decision to operate or shut down a reactor is made at the national level. The objective of the peer review is to improve safety, ensure that no important issues have been overlooked and give national regulators information for consideration of good practices and further improvements. The peer review will not make recommendations regarding operating or shutting down individual facilities.

18. Where can I find information about the earthquake risk at a particular site?

The earthquake risk at each site is discussed in the national regulator report which is publicly available at the ENSREG web site. If you have specific questions, please address them to the national regulator. The peer review is

ongoing and we are not in a position at this time to discuss the results. The results will be published at the end of April.

19. Where can I find more information about a particular site?

If you have specific questions on a particular facility, please address them to the national regulator.