



**EUROPEAN COMMISSION**

**PRESS RELEASE**

Brussels, 4 October 2012

## **Nuclear stress tests: confirmation of high safety standards but need for further improvement**

The standards of safety of nuclear power plants in Europe are generally high but further improvements in the safety features of almost all European nuclear power plants are recommended. Nevertheless national safety authorities came to the conclusion that no closure of Nuclear Power Plants was warranted. This is the main message of today's European Commission communication on results of the nuclear stress tests. These tests have established that not all safety standards promoted by the International Atomic Energy Agency (IAEA) and not all international best practices are applied in all Member States. The Commission will follow closely the implementation of the recommendations and will at the same time propose legislative measures to further enhance nuclear safety in Europe.

Commissioner Günther Oettinger said: "*The stress tests have revealed where we are good at and where we need to improve. The tests were serious, and they were a success. Generally, the situation is satisfactory but there is no room for complacency. All authorities involved must work to ensure that the highest safety standards are in force in every single nuclear power plant in Europe. For the safety of our citizens*".

In addition to recommending numerous of plant specific technical improvements, the stress tests have shown that International standards and practices have not been applied everywhere. In addition, lessons from Fukushima need to be drawn. In particular, these include:

- **Earthquake and flooding risk.** Current standards for risk calculation are not applied in 54 reactors (for earthquake risk) and respectively 62 reactors (for flooding risk) out of the 145 checked. The risk calculation should be based on a 10 000 year time frame, instead of the much shorter time periods sometimes used.
- **On-site seismic instruments** to measure and alert of possible earthquakes should be available at every nuclear power plant. These instruments should be installed or improved in 121 reactors.
- **Containment filtered venting systems** to allow safe depressurizing of the reactor containment in case of an accident, should be in place. 32 reactors are not yet equipped with these systems.
- **Equipment to fight severe accidents** should be stored in places protected even in the event of general devastation and from where it can be quickly obtained. This is not the case for 81 reactors in the EU.
- **A backup emergency control room** should be available in case the main control room becomes inhabitable in case of an accident. These are not yet available in 24 reactors.

## **Follow up:**

National action plans with timetables for implementation will be prepared by national regulators and will be made available by the end of 2012. The action plans will go through peer reviews in early 2013, in order to verify that the stress tests recommendations are consistently implemented in a transparent way throughout Europe. The Commission intends to report on the implementation of the stress test recommendations in June 2014, in full partnership with national regulators.

In addition to the specific technical findings and recommendations, the Commission has reviewed the existing European legal framework for nuclear safety and will present a revision of the current nuclear safety directive in early 2013. The proposed amendments will focus on safety requirements, the role and powers of nuclear regulatory authorities, transparency, as well as monitoring.

This will be followed by further proposals on nuclear insurance and liability and on maximum permitted levels of radioactive contamination in food and feedstuff. The stress test process has also highlighted the need for further work on nuclear security (prevention of malevolent acts), where the main responsibility lies with the Member States.

## **Background:**

Following the Fukushima accident in March 2011 the European Council called for comprehensive and transparent risk and safety assessments of all EU nuclear power plants.

The main aim of the stress tests was to assess the safety and robustness of nuclear power plants in case of extreme natural events. This means especially flood and earthquakes. Both scenarios were assessed simultaneously. Air plane crashes have been covered to the extent that they have the same effect as tsunamis and earthquakes, meaning that they shut down normal safety and cooling functions.

These stress tests consisted of three phases. In phase one the nuclear power plant operators carried out a self-assessment, in phase two national regulators evaluated these self-assessments and prepared country reports. In phase three, these reports were analysed by multinational teams in a peer review process, organised by ENSREG. In addition, the peer review teams have visited nuclear power plant sites. 17 countries fully participated in the stress tests (all 14 EU countries with operating nuclear power plants, Lithuania with a plant under decommissioning, plus Ukraine and Switzerland).

## **Further information:**

[http://ec.europa.eu/energy/nuclear/safety/stress\\_tests\\_en.htm](http://ec.europa.eu/energy/nuclear/safety/stress_tests_en.htm)

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