# Follow-up actions after the EU Stress Test

Joint statement by ENSREG and the European Commission on the adoption of the Stress Tests Peer Review Report of 26 April 2012 :

- *Implementation of the results within national responsibility*
- *Joint action plan for further procedure*

ENSREG and the European Commission agreed to propose an action plan in the national, the European and the global context:

- *Implementation of the recommendations of the peer review report;*
- *Implementation of the IAEA action plan on nuclear safety;*
- *The outcomes of the extraordinary meeting of the Convention of Nuclear Safety;*
- *Additional site visits as agreed.*

# Follow-up actions after the EU Stress Test

The ENSREG Action Plan of 25 July 2012 :

- *National Action Plans to be published by the end of 2012*
- *Workshop in spring 2013 to present National Action Plans and to peer review these via a common discussion*
- *Agreement on a set of fact findings site visits to nuclear power plants to review early follow-up activities already taken and planned*

¾ ENSREG National Action Plan ( NAcP) Peer Review Workshop Brussels 22-26 April 2013

# Pre-workshop activities

- All 15 EU member states with NPPs, Switzerland and Ukraine prepared NAcPs and had them published on the ENSREG website.
- Comments and questions ahead of the workshop could be raised on individual NAcPs, until 22 March 2013 via the ENSREG website.

# WorkshopProcess

- All NAcP owners were assigned 1 hour discussion time.
- 12 rapporteurs monitored the NAcP presentations and the discussion.
- The rapporteurs presented their observations and findings to the plenary.
- The outcome of the process is a Summary Report by the workshop participants, endorsed by ENSREG for publication.
- A President's statement was made public on 26 April.

- The Summary Report was published on the ENSREG - Website on 7 June 2013

# Findings ReportedActions

- All countries identified analysis needs, hardware improvements, procedural modifications and regulatory actions.
- All participating countries reported their analyses of safety margins under extreme natural hazards. Measures to further increase the robustness of the NPPs are planned or have already begun.
- All participating countries have introduced the general requirements for Periodic Safety Review (PSR) in their national regulations.

# Findings ReportedActions

- A number of countries presented concepts of bunkered or hardened systems.
- Maintaining containment integrity under severe accident conditions remains an important issue for accident management. This was well recognized and discussed. Related activities are included in most NAcPs.
- New installation or improvement of existing filtered containment venting and of passive autocatalytic recombiners (PAR) was reported.

# Findings Implementation Schedule

- All countries outlined a stepwise process in implementing improvement measures.
- Several hardware improvements commenced immediately after the accident.
- Results of ongoing generic or plant specific analyses will determine scope and design of further hardware measures.
- Analyses and reviews will mainly be finalized by 2014.
- Major modifications are expected to be implemented by 2015-2018.
- Latest date mentioned is 2020.

# Findings Challenges

- reassessing natural hazards systematically in the PSR process
- developing requirements for design, qualification and maintenance of mobile equipment that is not regularly used
- keeping the schedule for the implementation of appropriate hardware measures (industry capabilities available?)
- enhancing international exchanges on research and solutions on molten core cooling and stabilisation (in/ex-vessel)

# Findings: Transparency Issues

- All NAcPs are posted in English on ENSREG website.
- All NAcPs are posted on the member states national websites, about half of them also in national language.
- NAcPs will be updated according to status of implementation at least annually.
- All countries are committed to follow-up implementation of their NAcP until all measures have been finalized.
- The workshop provided transparency on the improvement measures and the schedule.

# Workshop Special Session

## Improvement and harmonisation in nuclear safety through peer reviews

Presentations:

James E. Lyons, IAEA

IAEA Peer Review Missions for Nuclear Safety

Anton von Gunten, NPP Mühleberg/Switzerland

OSART and WANO Missions

# Workshop Special Session

## Improvement and harmonisation in nuclear safety through peer reviews

Discussion Results:

Peer Review contribute substantially to continuous improvement in nuclear safety

Sharing insights and gained transparency regarding implementation of safety improvements are of great value.

Follow -up peer review of national activities regarding the implementation of identified factual modifications would be valuable and could be conducted in 2015 or later.

# Outcome of the National Action Plan Workshop:

This Workshop demonstrated that

- ¾ lessons are learned and
- ¾ Improvements are being implemented
- ¾ Timescales are ambitious
- ¾ Challenges are identified

The Workshop provided transparency about improvement measures, their scope and schedule.

A follow -up peer review of national action plans and safety achievements is recommended for 2015 or later.

# Rationale for International Peer Processes to Improve Nuclear Safety

- It is well accepted that nuclear safety recognizes the international dimension of severe accidents.
  - Nuclear regulation is nationally based on national legal framework and implemented by national authorities

- National regulation must recognize this international dimension as well.
  - International peer processes can take this duty without waiving national responsibilities.

# Future Application of International Peer Processes to Improve Nuclear Safety

International peer processes

Vision:

constantly
improve
nuclear safety

Thank your for your attention!