



Strål  
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Swedish Radiation Safety Authority

# Nordic Nuclear Power Follow-up in Sweden

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NKS Fukushima seminar  
8-9th January 2013 in Stockholm



# Outline

- ➔ Background
- ➔ The Swedish Stress test process
- ➔ Results
- ➔ Swedish national action plan



## Background

- ➔ March 2011 – all EU nuclear power plants should be reviewed in a Stress test
- ➔ ENSREG<sup>1</sup> and the Commission clarified the criteria
- ➔ In May SSM was assigned to write the national report

1) European Nuclear Safety Regulatory Group



## Background cont.

- ➔ SSM made the Licensee's to carry out the reassessments/stress test
- ➔ As extra the Swedish central interim storage for spent fuel, CLAB, was also included in the stress test



## **The Swedish Stress test process**

- Licensee's was given five months for there work
- Licensee's final reports was delivered to SSM in end of October
- The Swedish National report was delivered to ENSREG in December 2011



## **The Swedish Stress test process, cont.**

To gain time and minimize SSM's review work

- Early reports describing starting points and assumptions for the studies
- Meetings between licensee's and SSM to find open items during studies
- Visits at the NPP's to give early feedback on the final reports



## **Stress test Peer review 2012**

- Topic specific Peer review in February
- Country visit in Mars
- Follow up visit in September



## Resulting potential areas for safety improvements

- ➔ Additional diversified electrical back-up sources
- ➔ Strengthen the internal grid
- ➔ Additional independent diversified core cooling system
- ➔ Strengthen the cooling of the spent fuel pool
- ➔ Improve severe accident instrumentation
- ➔ Plan measures when all units affected
- ➔ Ability to handle long lasting accidents





## The National Action Plan

- The plan was delivered to ENSREG 2012-12-31
- Go through all the recommendations from the Peer review
- The actions are investigations
- Scheduled in three different categories, 2013, 2014 and 2015.
- SSM will clarify the level of ambition early 2013



## **On-going safety upgrading of all Swedish nuclear reactors**

- New regulations on the design and construction of NPP's in force 2005
- Transitional provisions
  - Reactor specific modernization programs
  - Regulations fulfilled in 2013 (2015)
- Measures based on experience from the Fukushima accident shall be coordinated with the modernization programs