

Steady Lessons from Shaky Events

Kashiwazaki, Japan — In the wake of the significant earthquake that struck the world's largest nuclear power plant, the Kashiwazaki-Kariwa nuclear power plant, last year there has been renewed international focus on the structural strength of nuclear facilities. From 19-21 June 2008, the IAEA organized a workshop with the goal of sharing recent technical knowledge and approaches on designing and maintaining the ruggedness of nuclear power plants to safely withstand such severe external hazards. The meeting convened over 300 attendees from various fields of expertise, and concluded in late June 2008 in Japan.

"We organized the workshop with the objective of sharing recent findings and information obtained from the occurrence of strong earthquakes that impact nuclear power plants, as well as good practices and lessons learned," explained Antonio Godoy, Acting Head of the IAEA's Engineering Safety Section and leader of the workshop.

Key conclusions of the workshop included:

- 1 Seismic hazard evaluation continues to be a key element of assuring seismic safety of a nuclear plant;
- 2 Site-specific information and a full understanding of the geological and tectonic features of a nuclear power plant's site are critical to seismic safety;
- 3 In light of the July 2007 earthquake at the Kashiwazaki-Kariwa plant, it is clear that design and safety regulations play a critical role in keeping the plant robust in spite of an under-estimation on the original seismic input from the seismological studies performed at that time; and
- 4 Learnings from the Kashiwazaki-Kariwa nuclear power plant experience is providing valuable input to the IAEA's safety standards.

"Science is making enormous progress, but we have to remain eager to acquire new findings and new information to ensure nuclear power plant safety. And we also need to maintain transparency as well," said Mr. N. Hirawaka, of Japan's Tohoku Electric Power Company.

The workshop was organized by the IAEA in cooperation with the Nuclear and Industrial Safety Agency (NISA), Nuclear Safety Commission (NSC), and Japan Nuclear Energy Safety Organization (JNES). The OECD Nuclear Energy Agency cooperated in organizing the workshop.

A related IAEA-led workshop on the effects of tsunamis on nuclear power plants was held on 23 June 2008 in Daejeong, Korea.