



Lessons not yet learned from the Fukushima disaster

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Abstract

The Fukushima nuclear catastrophe has led to a wide-spread international discussion on how seismic and tsunami hazards can be better predicted and adverse consequences be prevented. In some countries the event led to the complete phase-out of nuclear energy. The lessons drawn by different organisations including earth scientists, earthquake engineers, non-governmental and governmental organisations will be reviewed from an independent position. This review captures the following areas:

- 1) Hazard assessment
- 2) Engineering design and defense in depth concepts
- 3) Emergency preparedness

It is shown that not all important lessons from the catastrophe have been drawn. Especially the need of an holistic approach towards hazard assessment and the implementation of defense in depth and diversity of design principles for critical infrastructures like nuclear power plants has to be stronger emphasized to prevent similar disasters.