

Importance of on-field seismic re-evaluation to understand seismic hazards (Nuclear power plants as case study)

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Abstract

Nuclear Power, for last many decades, has been considered a safe, economically viable, environment friendly and dependable source of energy globally. Due to energy deficiency and depletion of the conventional energy sources, the developing countries have also embarked on increasing nuclear share in their national energy mix. Therefore, a remarkable increase in nuclear energy has been observed in the developing world during the last decade, however, recent nuclear accident of Fukushima raised serious concerns on nuclear power plants safety against the external hazards such as earthquake. Consequently, it highlighted the need for re-evaluation of potential earthquake hazards from time to time. Taking into account the new insights from the Fukushima accident and all possible reasons of hazards and other events, it is concluded that although nuclear power plant site is selected on the basis of detailed site studies but it is now felt that these studies are to be updated from time to time. On-field seismic re-evaluation process if conducted in a continuous way is assumed very useful for understanding seismic hazards and can contribute to update the seismic hazards for the site. The poster focuses on importance of on-field seismic re-evaluation studies and its advantages for evaluating seismic hazards in a more detailed and updated way for nuclear power plants.