

Active tectonics of South Qom, a hazard for new residential areas

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Abstract

Qom province as part of central Iran exhibits specific characteristics of seismic activity with zones of varied relative seismicity. Historical and instrumentally recorded earthquakes show indications of substantial seismic activity of the faults. These faults include complex systems of reverse and strike-slip faults and play a crucial role in continental deformation and structural pattern of the region. Using satellite images as well as doing field work, several faults were identified in the study area. The faults are potentially active and capable of creating destructive earthquakes. Contributing to structural pattern and active tectonics of Qom region, these faults are actively changing topography and morphological features. Since new residential construction projects are under way in this area, it is highly recommended that seismic potential of faults be taken into consideration.

Key words: new residential, seismic activity, seismic potential, structural pattern.