

Seismic risk studies for geothermal projects accomplished

Recently, seismic activity that was felt by residents could be related to operational activities at several geothermal projects (e.g., Landau, Basel). This has raised concerns regarding the hazard posed by geothermal installations. In response, public authorities now stipulate a seismic risk analysis as a prerequisite for granting an operating license. Based on concepts of the groundbreaking [risk study of the geothermal project in Basel](#), Q-con conducted two seismic risk studies in Q1/Q2 2010 for projects in the Molasse and the Upper Rhine Graben in Germany. These studies assess the risk related to the development and operation of the geothermal systems. The methods utilized in the studies are based on substantiated physical models including site specific numerical simulations of subsurface stress changes and associated seismicity. Additionally, appropriate measures for minimizing a potential seismic risk are proposed, thereby facilitating a proper handling of the issue of seismic risk in conjunction with geothermal installations.

Stress changes on a natural fault near the geothermal facility. Stresses are caused by thermal contraction of the reservoir after 30 years operation.

