

Evaluating the steady-state of twin tunnels of Pirtaghi dam power plant under earthquake loadings

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Abstract

The design of structures for a long time use represents a big challenge in the rock mechanics and tunneling works. The water supply of the Pirtaghi Dam reservoir-pumping power plant in Iran is provided by the twin tunnels. Since the Pirtaghi dam site is located in an earthquake-prone area, it will probably experience earthquakes in its lifetime. So, in this project, the steady-state of the support system of the twin tunnels of the water supply of the Pirtaghi power plant under likely earthquake and static loading is evaluated by a 3D numerical modeling. The results show that the system is capable to guarantee stability against seismic loads.

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