

عنوان مقاله:

Numerical finite element modeling for earth-dam grouting and curtains wall design by Plaxis software

محل انتشار:

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خلاصه مقاله:

The presented study provide the numerical view and finite element (FEM) based modeling for earth-dam sealing curtains wall in earth-dam by using grout injection procedure. In this regard the plaxis software was used to estimate the variations and provide the simulation which is implemented in geometrical modeling, boundary conditions, assign materials properties, behavioral model, mechanical modeling and seepage analysis. Modeling conducted for two case groups related to before and after curtains wall design. According to the results of seepage analysis, it has been determined that when the sealing curtain is not applied, deformations due to stress, strain and pressure of the perforated water cause changes in the dam area and its expansion in sediments. On the other hand, the expansion of strain in the core range reflects the phenomenon of plastic behavior of the core and downstream, which is the result of in-situ stress and water pore-pressure in it

کلمات کلیدی:

Earth-dam, Grouting, Numerical modeling, Finite Element Method, PLAXIS, Dam curtains wall

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