

## عنوان مقاله:

Study on the behaviour of cut-off-walls in homogeneous and heterogeneous dam foundations

## محل انتشار:

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## خلاصه مقاله:

Regarding to important role of cut-off-wall behaviour in seepage reduction and dam stability, in this paper we have studied interaction between dam body, cut-off-wall and foundation, considering the effects of interface elements. We tried to examine the behaviour of walls in homogeneous and heterogeneous dam foundations. We studied on the behaviour of karkheh dam cut-off-wall in heterogeneous foundation and compared the results with the same model but with a homogeneous foundation. Obtained results show that the cut-off-wall in homogeneous foundation is subjected to a nearly hydrostatic water pressure. In this case relation between elasticity modulus of foundation and cut-off-wall is very important to assign the appropriate behaviour of the cut-off-wall. If these two modulus to be close enough to each other, induced stresses and strains in the wall will be moderate and acceptable. In the case of heterogeneous foundation, the results are different. In this condition cutoff- wall is subjected to stress and strain localization near to mudstone layers and maximum pore pressure near to conglomerate layer. Although, hydraulic fracturing will not happen in cut-off-wall because of high effective stresses.

## کلمات کلیدی:

interaction, cut-off-wall, homogeneous, heterogeneous foundation, stress localization, hydraulic fracturing

## لینک ثابت مقاله در پایگاه سیویلیکا:

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