



Deformation analyses of river dike on liquefiable ground affected by different earthquake motions

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ABSTRACT: Effective stress based finite element analyses were carried out by the program code “LIQCA” to compare the damage of the river dike by different earthquake motions. The simulated results of three different earthquake motions were compared in detail. As the results, it was confirmed that the duration time and the acceleration amplitude of earthquake motion were key factors which affect the damage of the river dike.

Key Words: Liquefaction, River dike, Effective stress analysis, Earthquake