

Evaluation of Iranian Standard for Assessment of Liquefaction Potential of Cohesionless Soils Based on SPT

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Abstract : In-situ testing is preferred to evaluate the liquefaction potential in cohesionless soils due to high disturbance during sampling. Although new in-situ methods with high accuracy have been developed, standard penetration test, the simplest and the oldest in-situ test, is still used due to the profusion of the recorded data. This paper reviews the Iranian standard of evaluating liquefaction potential in soils (codes 525) and compares the liquefaction assessment methods based on SPT results on cohesionless soil in this standard with the international standards. To this, methods for assessing liquefaction potential which are presented by Cetin et al. (2004), Boulanger and Idriss (2014) are compared with what is presented in standard 525. It is found that although the procedure used in Iranian standard of evaluating the potential of liquefaction has not been updated according to the new findings, it is a conservative procedure.

Keywords : cohesionless soil, liquefaction, SPT, standard 525

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