عنوان مقاله:

(Site effect analysis of Shirvan GTL refinery, using equivalent linear soil behavior (NE of Iran

محل انتشار:

چهارمین همایش زمین شناسی و محیط زیست (سال: 1387)

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خلاصه مقاله:

Site effect is one of the important factors which should be evaluated before constructing any important structure. Gas refinery is a sensitive structure that is should be studied seismicity and effect of soil charactristics on earthquake hazard increasing or decreasing in study region. In this study, site effects of the gas refinery site in Shirvan, NE of Iran, studied and evaluated by numerical method and soil equivalent linear behavior using EERA program. To obtain soil charactristics,4 borholes excavated and soil mechanics tests done on the samples of these boreholes. Generally, ground type of the region in shallow depth is gravel (G) and in deep is clay (CL). S-wave velocity obtained by downhole test. By regarding to these primary information, ground surface response resulted in all boreholes and the results show by isoacceleration, isoamplification, isofrequency and isoperiod maps. Maximum acceleration in the ground surface, is 0.422 g in recurrent period 475 y. Mean amplification factor in the region is 2.3. The region is amplified in mean frequency range - 12-14Hz, and period range - 0.070-0.085 (s). Then, the result differentiated according to Iranian Code of Practice for Seismic Resistant Design of Buildings, Standard No.2800 . Finally, the results compared by ground type obtained according Standard2800 . By comparing, it is observed that surface acceleration, amplification factor, and amplification frequency and period are compatible with ground type of all sites according Standard 2800 . Acceleration response and amplification spectra are compatible in all sites. Regarding to compatible results and ground charactristics in all boreholes and by regarding to the restricted study region then one can suppose the region is uniform with small variations.

کلمات کلیدی:

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