

Abstract

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Water is a vital resource for humans. This precious, also known as blue gold or gold name of the future differs from all other natural resources, for he knows no borders.

For this The performance of the water tower in seismic area stimulated engineers and designers to improve this type of structures in Algeria, because of damages and collapses observed in during the earthquake of Chlef of the 21.05.2003 which shaken the town of Chlef and its surroundings.

In this study, the object is to calculate dimensions, and checks the stability of the structure under the earthquake effect in Zone III (Chlef) based on the seismic code Algerian RPA 2003, SAP 2000 V14 software.

For this purpose, analysis have calculated periods, normal modes, and displacement, shear forces, reinforcement, wind effects and bending moments.

Key words: water tower, structures, earthquake, displacement.