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ABSTRACTS

Monitoring the deformation of an industrial tank in the discharge and filling process

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Abstract

Industrial building structures require revisions and periodical rehabilitation.

In order to update the mathematical model of the structure, it is necessary to determine the different dimensions of the component construction elements, to check the relative positions of the characteristic points of the monitored structure, etc.

This article shows how to monitor a reservoir with ovoid shape, emptying and then filling after it has been rehabilitated and upgraded. The tank has been previously equipped for monitoring by geodetic methods.

The article aims to highlight the working procedure and the accuracy of the results.

The results of the measurements are represented by the coordinates of some object points, which help to deduce the displacements and - respectively - deformations of the building elements at different times in the various stages of the reconstruction works of the objective.