HMJ Newsletter 04’2026 – Infrastructure

Analysis of Engineering Structures

Per order of large commercial and utility customers, HMJ Ltd. has carried out in period 2025/2026 a few engineering studies of foundation structures containing sensitive industrial or power installations. In one case it concerned placement of big liquid-product tanks on fragile, high-plasticity subsoils and in another, structure enclosing highest-voltage switching station in area of increased seismic activity.

Although only parts of Europe are affected by increased seismicity, but there is a growing awareness among industrial customers that even in low-natural risk area, there might be an anthropogenous seismicity hazard, potentially affecting expensive and important industrial installations.

In order to assess such risk HMJ Ltd. made required 3D models of buildings and structures, including their industrial/utility content, and ran full linear and non-linear seismic analysis for the whole possible spectrum of seismic waves, both surface- as well as deep.

The analysis based on geological study made in cooperation with scientists from leading Polish university and on thorough geodetic measurements.

The seismic calculations were done per guidelines of Eurocode 8 (EN 1998) and its outcomes as presented to customers, included proposed construction designs.

