



Wave penetration study Port of Sines, Portugal

Transgás Atlântico requested Svašek Hydraulics to conduct a wave study on the relation between the wave height at the LNG berth and the offshore wave buoy that is operated by the Port of Sines Authority APS.

Client
Transgás Atlântico

The wave energy from the offshore buoy location is transferred to the LNG berth using the mathematical model HARES. This model includes all relevant wave processes that occur in harbour areas, like refraction, diffraction and reflection of waves at slopes and quays.

Location
Sines, Portugal

The model results show the wave height ratio's for different wave directions and periods and cover all likely conditions that may occur in the Sines area.

Date
2003

The left figures show a photo of the LNG berth and an overview of the port. The right figures show the result for a typical wave period and direction. The upper figure shows the wave height multiplication factor K on a scale from 0 to 2. This factor is the ratio between the wave height in the model area (H) and the wave height at the boundary of the model area (H_0), so $K = H/H_0$. The lower figure shows a momentary image of the wave propagation pattern.

Services
Wave penetration study (HARES)