

Case 24/2021

Issue: Foundation (Driven Steel Tubular Piles)

Recommendation:

- (1) To accept the use of Pile Driving Analyzer (PDA) test with CAPWAP analysis as proof test to verify the geotechnical pile compression capacity has a minimum factor of safety (FOS) of 2 at the time of testing and demonstrate a longer-term FOS of 3 using the site specific set-up curve. The design pile lengths are based on static formula with a FOS of 3.
- (2) To accept the methodology and parameters concerning the future scour allowance for interpreting pile capacities based on PDA test with CAPWAP analysis for the verification of FOS.

Decision: Having noted the background information and arguments together with RSE's quality control and supervision arrangement, members endorsed the recommendation on a case-by-case basis subject to the following conditions:

- (a) A performance review with the PDA test results should be conducted to assess if the piling works have been satisfactorily carried out and the required pile capacity has been achieved.
- (b) An updated performance review report covering longer service time span of the piled foundations should be submitted before the application for Occupation Permit. The updated performance report should present measurable data related to the behaviour of the completed pile foundation.