



Wave measurements Port of Rotterdam Verification Transmission Coefficient Noorderdam

During the storm season 2008 . 2009, Svazek Hydraulics has carried out wave measurements at the harbour entrance of the Port of Rotterdam. The wave measurements have been initiated to verify formulas to calculate wave transmission through the Noorderdam (a rubble mount breakwater).

For wave transmission through the Noorderdam, a combination of high water levels (including surge) with high waves from North West directions is governing. The expectation is that during these events, wave transmission is the normative load combination for the revetments along the GateLNG terminal.

For the verification of the transmission, on both sides of the Noorderdam, Datawell Waverider Buoys are installed from December 17th 2008 to May 16th 2009. Unfortunately during this whole period, very few storm conditions did occur and verification of the transmission coefficient could only be analysed for operational conditions.

The harbour resonance wave model HARES was used to calculate the diffraction patterns around the breakwater to subtract wave diffraction from measured wave height to arrive at a transmitted wave height.

Client
Gate LNG

Location
Maasvlakte, Rotterdam

Date
2008-2009

Services
Wave measurements during storm season
Verification of transmission coefficient
HARES

Svazek Hydraulics

Schiehaven 13G, 3024 EC Rotterdam, The Netherlands.

Phone +31 10 467 13 61, Fax +31 10 467 45 59, Internet: www.svasek.com, E-mail: info@svasek.com

SV1520