

## DETAILS OF INTERESTING CLAIM

No: DOIC 62 (CAR)

### Type of Insurance:

CAR

### Description of damaged item:

Retention wall

### Cause of Loss:

(3) Faulty design

### Claim Cost

€ 35 m.

### Description of Incident and Loss Prevention Measures initiated:

In order to build the retention wall, a ditch was open alongside as the construction made progress. Once the owner decided to start dredging the harbour, the ditch was protected by two clay embankment dams or cofferdams.

At the time of the loss, 350 m of the wall were finished with top coping and pinning and exposed to the water behind the dike because the dredging had already started. Tide movements gradually hollow out the underwater part of the first cofferdam until it broke. Soon afterwards, the second cofferdam, not being able to resist the water pressure, yielded letting the water flood the ditch.

The water stream broke into the ditch and quickly reached the other ditch end, bounced and returned in the direction it had come, in a progressive wave mode. As a result of this, the part of the wall that was still not reinforced by pinning and earth was stretched and cracked (see pictures in power point presentation attached).

### Outline the interesting or unusual aspects of this claim or problems experienced during settlement:

Construction of a commercial harbour in Europe: The works included the construction of a 1.400 m long concrete held quay wall of 40 m height. The wall was expected to be fully built within a protected, dry area and therefore, no action of the sea was feared.

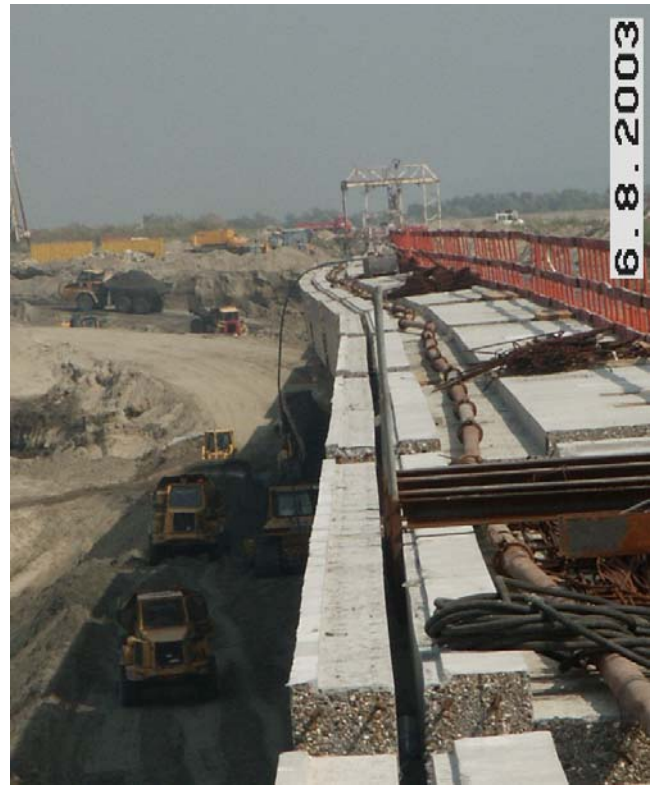
The owner and the contractor were covered by a CAR policy. The total sum insured was around € 140 m

Apparently, at a certain point during the construction period, the owner decided to change the schedule and started opening the harbour, while the retention wall was still being built. The construction company did not notify the insurer/reinsurers about these changes and therefore, nobody was aware of the change in risk.

The original amount claimed was € 35 m.



Retention wall and flooded ditch



Deformed section of retention wall

The cause of the loss was a rupture of the cofferdam due to a design error and the action of the sea. No specific “*normal action of the sea*” exclusion was attached to the policy since it was initially understood that the quay was going to be built fully onshore.

Despite an obvious material change of risk, it was very difficult to reject this claim. Considering the legal environment, litigation for a case with no sufficiently accurate original project descriptions would have been hazardous and most probably unsuccessful.

Harbour and sea works are intricate and as such difficult to assess and price. The size of the accepted share should reflect these uncertainties. In addition, never consider works in a harbour as dry, even if the main part of the construction is going to be executed on earth. An exclusion of “*normal action of the sea*” should always be inserted.

For complex CAR/EAR facultative business an adequate Risk Management organization should be set up. Systematic risk surveys – followed by the corresponding adaptation of the terms and conditions – would have helped the insurer / reinsurer to detect the material change of risk in time and to react accordingly.

(From [Engineering Insurance Exposure related to Wet Risks](#) - IMIA Paper WGP50(07)E)