

DETAILS OF INTERESTING CLAIM

(From EAR & CAR - Third Party Liability - Existing and Surrounding Property IMIA Paper WGP40 05)

No: DOIC17 (CAR)

Type of Insurance:

CAR

Description of damaged item:

Subway Tunnel Collapse

Cause of Loss:

1

Claim Cost

Description of Incident and Loss Prevention Measures initiated:

Ground conditions in this area are described as water saturated sands and silts. At the time of the loss the contractors completed excavations at two stations (named 02 and 04) utilizing cut and cover methods and excavation depth of up to 18 meters. The tunnel distance of 1080 m between these stations was under construction using shield machines with pre-cast concrete segments as lining. Both tunnels were started from station 04 and headed for station 02. However, when the shield of the boring machine broke through the diaphragm wall, large quantities of water and sand suddenly poured into the station through the gap between the concrete diaphragm wall and the TBM shield. Eventually, a crater developed in front of the station wall with subsidence of up to two metres. As to the cause of the loss it appears obvious that the contractor's measures to reduce the permeability on the outside of the diaphragm wall proved to be incomplete. As a consequence, water paths could develop as the TBM broke through the station wall leading to a sudden ingress of water and sand.

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

Five buildings in the immediate area were severely affected, declared unsafe and by order of the municipal government were demolished within a month. Further six buildings were also considered a total loss while a further eight buildings required major repairs. The TPL coverage attached to this policy is quite restrictive responding only to totally collapsed structures with valuation on actual cash values. In addition, any form of cover for business interruption, loss of business or loss of rent as well as personal property and building contents is excluded. Indemnity under Section II of the CAR policy was in the magnitude of USD 1 m.

CODES

1. Type of Insurance

M - Machinery Breakdown

BE - Boiler Explosion

LP (M) M - Loss of Profits

ALOP (DSU) - Advance Loss of Profits

EAR - Erection All Risks

CAR - Contractors All Risks (Civil)

G - Guarantee

EE - Electronic Equipment

O - Other Classes

2. Cause of Loss

(1) Faulty operation

(2) Faulty material or workmanship

(3) Faulty design

(4) Other internal causes

(5) Fire

(6) Explosion

(7) Storm

(8) Earthquake

(9) Other external causes

(10) Other causes or unknown