

DETAILS OF INTERESTING CLAIM

(From Risk Control and Claims Handling in Advance Loss of Profits Insurance - IMIA Paper WGP11 (00)E)

No: DOIC30 (EAR/ALOP)

Type of Insurance:

EAR/ALOP

Description of damaged item:

Explosion of an electrostatic precipitator during testing of a steam boiler

Cause of Loss:

(6) Explosion

Claim Cost

1 US\$ Mio

Description of Incident and Loss Prevention Measures initiated:

During testing of the burner open-loop control system of the steam boiler, there was a flue gas explosion in the electrostatic precipitator, which is connected to the boiler by a flue gas duct. Different types of oil of varying viscosity had been used to fire the boiler for a period of three weeks in the course of testing. This led to incomplete combustion following a change in the type of oil and an accumulation of explosive gases in the precipitator. Drifting sparks from the boiler and sufficient oxygenation caused the gases to ignite. The explosion totally destroyed the 20-m-high electrostatic precipitator weighing 150 t. However, the boiler itself was only slightly damaged by the ensuing blast wave thanks to the lifting of the safety valve, which had a positive effect.

After contacting the manufacturer, the time required for the procurement of a new precipitator from Europe to replace the original was estimated at about 6 months. The insured arranged for the ordering of the new precipitator without delay, after consulting the insurer. The 12-month Maximum Indemnity Period agreed in the policy was of adequate duration in this case. The manufacturer had promised to give top priority to the manufacture. This just goes to show that not only well-known key equipment such as the steam boiler can involve long delivery periods, but that some plant components and modules must also be regarded as key items with long delivery periods, particularly if overseas transport and difficult transport routes are involved. This applies to a greater extent if testing is already underway, because there is practically no feasible way to make up for the delay in the course of the erection work.

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

This EAR loss involving a small power plant component gives a striking impression of the impact which the delivery date and loss minimizing measures can have on the duration of the delay after an EAR loss. It also highlights just how critical testing can be for business interruption losses. This is because of the increased risk potential and the reduced possibility of making up for delays. The example also demonstrates the problems surrounding indemnification on agreed fixed value.

A small steam power plant including an oil-fired steam boiler with an output of 60 - 80 t/h was to

be erected in a South American forestation area to utilise waste wood from the local cellulose production industry. The erection period was estimated at 12 months including a three-month trial run. The risk was insured by means of combined EAR/ALOP cover.

Swift and close co-operation between all parties concerned, from the insured and the broker to the insurer and the reinsurer, meant that loss-minimizing measures were implemented quickly. Arrangements were thus made to produce a steam boiler bypass for flue gas so that testing of the boiler could at least be concluded. This measure ultimately cut the duration of the delay by about two weeks. In addition, consideration was given to the possibility of temporarily installing a cyclone separator, a measure which might have enabled small quantities of waste wood to be burned even at this stage. However, this plan to operate the plant at partial load could not be put into action due to strict flue gas and emission regulations.

Once all the cost elements had been weighed up by the insurers, the following procedure was agreed on: the new precipitator would be transported as air freight, the manufacturer's specialist staff would be used and would work overtime to complete the manufacture and installation. This permitted the delay in commissioning to be cut down by about another month. The amount in excess of the agreed limit for air freight as well as the costs for the boiler supplier's specialist staff and the overtime were borne under ALoP as loss-minimization costs.

In the end, the effective delay up to final commissioning before deduction of the 30 day time excess came to just 126 days, thus totalling just over four months.

An awareness of the possibilities of loss minimization measures in risk management studies and in the run up to taking out insurance has proven useful, time and again. Another important aspect in this context is the fast and intensive involvement of specialists from the parties concerned following a loss occurrence which can be expected to delay commissioning.

On the basis of the policy, the indemnification had been set at an agreed fixed value of US\$ 215,000 per month. However, the loss actually incurred once the effective steam capacity had been available for the first few months following commissioning, came to US\$ 249,300. The differential amount was composed in the main of the following elements:

a) the duration of the delay led to a higher moisture content of the wood shavings in storage due to the prevalent weather conditions. The boiler could only be fired with diesel in this condition, which led in turn to increased costs due to the more expensive diesel oil required. The increased costs were estimated at US\$ 150,000 - around 20% of the costs of the delay.

b) additional personnel costs of US\$ 22,000, which were not covered by the EAR insurance.

In principle, the sum insured should be calculated on the basis of the planned annual gross profit plus a certain safety margin in order to prevent underinsurance. The indemnification should be based on the actual loss sustained in order to avoid the unjustified enrichment of the insured or, as in this case, its unfavourable treatment.

Additional safety devices such as an additional fuel pre-heater, a viscosimeter, additional temperature and pressure indicators and an interlock control system were installed in the boiler system during the repair work in order to rule out a repetition of the loss. These plant optimization measures had no effect on the duration of the delay and were therefore not taken into account in the indemnification. Had the plant optimization measures led to further delays resulting from longer manufacturing, delivery or installation periods, it would have been necessary to calculate the portion of these additional delays in the overall period and deduct this from the total loss sustained due to interruption of business.

After deduction of the 30-day time excess (US\$ 215,000) the indemnity for the loss due to delay came to US\$ 688,000 for the remaining 96 days. In other words, it had been possible to reduce the loss originally estimated by a third through loss minimization measures. However, the loss ratio for the ALoP section of the policy share comes to 1750% and, taking into account the accumulation with the EAR section, there is even a loss ratio of over 2000%.

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