



## Course of Construction Loss bulletin

HSB Canada, part of Munich Re, is a technology-driven company built on a foundation of specialty insurance, engineering, and technology, all working to drive innovation in a modern world, to keep you ahead of risk.

### Chiller

During the construction of a new research facility, the chiller that was installed to provide emergency air conditioning failed. During the system hot testing period, an operator switched the glycol pump from automatic to manual operation. The pump was actually in manual operation while the compressor was shut down, causing damage to two condenser tubes, the evaporators and compressors. An override should have prevented the pump from operating without the compressor, but failed to do so. As a result, the entire system required replacement. Warranty on this unit was denied because the glycol pump was in manual operating mode.

The cost of the replacement chiller was \$93,500. The balance of the loss was labour costs associated with the installation of the unit.

- Insured losses: \$198,000 (including resultant damage)

### Diesel generator

While constructing an apartment building, a 400kW diesel generator began vibrating excessively and shut down, causing a total electrical power loss to the site. The engine's crankshaft was damaged when two main bearings and two connecting rods failed. The cost of repair exceeded the cost to replace the engine.

- Insured losses, covering cost of new generator: \$50,000



#### **Circuit breaker**

A power surge damaged a 4,000-amp circuit breaker at a hospital that was under construction.

– Insured losses: \$110,000

#### **Transformer vault**

Electrical arcing occurred in a transformer vault of an office building under construction, shutting down electric power to the building.

– Insured losses, including \$40,000 in expediting expenses, totalled \$180,000

#### **Electrical**

An office building's main line breaker short circuited when an electrician opened the main panel, causing damage to the equipment and resulting in loss of power to the building.

– Insured losses: \$116,234

#### **Air conditioning**

Cracks in the evaporator tubes of a 500-ton chiller resulted in the mechanical failure of an office building's air conditioning system. Replacement of the refrigerant alone cost \$35,000.

– Insured losses: \$129,139

A 44-storey office building lost air conditioning when a 2,000 KVA transformer short circuited. A large crane was required to hoist out and replace the damaged transformer.

– Insured losses: \$115,000

A building's air conditioning centrifugal compressor failed. The compressor's bearing shaft, impeller, housing, labyrinth seals and vanes were damaged and required replacement.

– Insured losses: \$96,012