

Loss of cooling oil in transformer

Type of Insurance:

M

Description of damaged item:

Short-circuit of a transformer

Cause of Loss:

(9) Other external causes

Claim Cost

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Description of Incident and Loss Prevention Measures initiated:

In a desalination plant near the Mediterranean Sea the electricity supply was suddenly interrupted which led to a stand still of the high pressure pumps. Controlling the 3150 KVA transformer which formed part of the plant it was detected that the ceramic isolation showed cracks near the clamps at the high tension entrance. Through these cracks the cooling oil must have escaped and caused a short-circuit. The oil spill even could be observed outside the transformer housing.

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

As the maximum temperature of the transformer, which was located in the half-open housing, had been 45°C only, no overheating had taken place and no storm with electromagnetic phenomena such as thunderstorm had been registered in the weeks before which excludes the possibility of sudden damage caused by over tension in the course of lightning strikes. It was finally concluded that sudden changes in the electric power supply – which apparently occur in this area again and again – must have caused peaks in tension and caused the isolators to crack.

The owner had immediately hired a transformer with 2.500 KVA and restarted operation within 48 hours after the event. As the manufacturer could not start the repair works immediately due to the holiday season this transformer was then acquired fully. Moreover, and in order to control further fluctuations in the power supply an adequate volt metre was bought and installed.

As the decision to buy the transformer was made fast hiring costs were low and resulting business interruption was below the deductible. Repair works were indemnified in excess of the deductible and not too high.

Conclusions: this type of loss also may occur during testing, especially in countries where electricity supply is unstable.

Loss minimisation is possible whenever equipment can be rented fast, repair works may require much longer time, especially in countries which need shipment of damaged equipment to the country of the supplier/manufacturer or where summer vacations may lead to related problems.

Source:

Desalination Plants – Technological development, Risks affecting Engineering Insurers and Claims Experience – IMIA Paper WGP57 (08):
Typical Loss Examples

http://www.imia.com/downloads/imia_papers/WGP57_2008.pdf