

Ventilation fan blades detached

What happened?

All six blades of a roof mounted building ventilation fan detached whilst the fan was in operation. The fan is mounted 30 meters above the floor in the turbine hall roof, but in this particular location, blades and pieces of blades fell 10 meters onto the below GT enclosure roof. Some blades were thrown out through the ventilation hood onto the turbine building roof.

Thermal: Turbine Hall Roof

What did we learn?

A bird appears to have flown into the fan causing a fan blade to impact the motor support struts. The ensuing disturbance has led to all six blades shearing off. The blades are a moulded plastic

There were no maintenance plans for these fans.

The external ventilation hood louvers were in disrepair.

There is no mechanism installed that would prevent bird strike or capture falling debris. There are three more ventilation fans in the turbine hall in which a detached blade has the potential to fall the full 30 metres to the floor below.

Fan with missing blades and a Blade

