Generator blade deformation

The potential failure of generator rotor fan vanes and blower blades has been identified as an area for detailed risk assessment in the electric power generation industry.

Torsional vibration failures, especially in low-pressure turbine blades, have been a persistent issue for decades, causing costly outages and extensive investigations. At ENTRUST Solutions Group, we recognize the ...

Figure 3: Macro view of a crack formed in a gas turbine blade. Penetrant tests shows a macro view of the gas turbine blade after and penetrant no other cracks test which only the crack visually observed Figure 4: ...

Three kinds of blades were found in the turbine casing after the accident: fractured blades, cracked blades and un-cracked blades. The failure was at the turbine side of the generator and according to ...

The potential failure of generator rotor fan vanes and blower blades ...

Visual inspections were taken on the generator parts especially on the fan blades and the effect of accident on them was studied. Three kinds of blades were found in the turbine casing after the accident: fractured ...

In addition to the verification of critical deformation, i.e. the tower clearance between blade tip and tower surface in particular, verification must be provided that the resonance frequencies of the rotor blade are not excited ...

Blade deformation in axial fans The blade sections are normally stacked along the centre of gravity The higher stagger angle at the blade tip results in positive lean

Rotor unbalance has many causes. This paper will focus on causes that can be corrected with rotor balancing.

The failure of the blades was investigated using fractographic and microstructural characterization techniques as well as mechanical evaluations.

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Driven by the challenges in measuring blade deformations, this study presents a novel machine learning methodology to predict blade tip deformation using inflow wind data and operational parameters.

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