

Materials Technology & Failure Investigation



Is continued operation of the plant advisable with respect to safety, despite a minor breakdown?

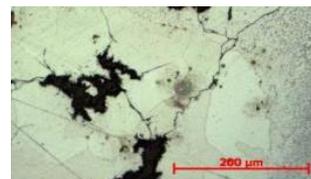
What is the condition/lifetime of the apparatus/structure?

Strict demands are frequently put on investigations that form the basis for decision making. Is continued operation of the plant advisable with respect to safety, despite a minor breakdown? Is it economically justified to renovate a component/apparatus or is a replacement preferred? To obtain correct data, a profound understanding of processes and materials is required. DEKRA provides failure investigations and life cycle analyses based on, for example, knowledge of materials and corrosion, strength calculations and various destructive, as well as non-destructive testing methods.

Areas of expertise:

- > **Status and life time analyses** – based on expert knowledge of materials and corrosion, strength calculations, practical experience and various testing methods.
- > **Failure investigation** – evaluation of root cause to failures or incidents, recommendation of actions to prevent future damages.
- > **Damage resistance analysis** – how long can you continue operation with a damaged part before replacement becomes unavoidable?
- > **Stress analysis** – both static and dynamic, including the possibility of in-operation stress measurements.
- > **Materials technology** – expertise and laboratories capable of various in depth material analyses.
- > **Corrosion analysis** – what is the cause? Faulty material selection, detrimental environment, insufficient maintenance or incorrect installation? Which measures should be taken?
- > **Metallurgy and replica assessment** – a metallurgical analysis forms the basis of various assessments. Sample preparation may be carried out in a laboratory or in the field (replica testing).

Asset Integrity Management aims to provide added security to our customers processes and minimize the risk of unexpected breakdowns. This is achieved through cost effective recommendations for long lasting and safe operation.



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DEKRA - Global partner for a safe world
DEKRA is working for increased safety in a variety of industries through independent inspection, testing and certification. DEKRA is Europe's leading expert organization with 40 000 employees in more than 50 countries.

With reservations for errors and changes.