



CONDITION-BASED INSPECTION AND INSPECTION FOR CHANGE OF SERVICE COMPANY

The condition-based inspection is carried out upon the request of the insurer to maintain the agreed insurance cover of plants already insured or upon closing a new contract for existing plants. Furthermore, it is of interest to investors, because over and above the scope of a recurring periodic inspection, the technical condition of the wind energy converter, with a focus on the drive train and the rotor blades, will undergo an intensive inspection. This inspection can also be used prior to a change of service company as a basis for the new service provider.

It is recommended to be carried out for:

- a change of operating company
- a change of insurance company
- special conditions imposed by the insurer
- a change of service company
- expiry of a (full) maintenance contract
- expiry of an operations management contract.

The experts must fulfil the "Requirements for the Wind Energy Converter Technical Experts" of the German Wind Energy Association (GWEA) Technical Expert Advisory Council and be members in accordance with the "Rules of Procedure of the GWEA Technical Advisory Council" ("Principles for Condition-Based Maintenance of Wind Turbines" from the GWEA).

Inspection

This inspection focuses particularly on the drive train and the rotor blades.

The aim of the inspection is:

- to determine the current technical condition of the WEC,
- to recognise and name initial damage,
- to prevent consequential damage by the early detection of damage,
- to fulfil the conditions of the insurer.

Scope of inspection

The inspection is normally carried out in accordance with the respective insurance requirements and the GWEA Technical Advisory Council's "Principles for Condition-Based Maintenance of Wind Turbines". In addition to the rotor blade inspection, the main components of this inspection are the inspection of the entire drive train using a video endoscope and a vibration measurement. Persons with special knowledge or special facilities (laboratories, institutes) are called in for sub-areas such as the vibration diagnosis (evaluation of the CMS measurement in a machine diagnosis report) or for the scanning electron microscopy for the investigation of already conspicuous or critical components.

The scope of the test also includes determining whether the factual prerequisites for the inspection have been met and the requirements for maintenance, operational management and the recurring periodic inspection have been fulfilled and whether the rotor blades the drive train have suffered initial damage.

Inspection Result

We value your cooperation in reducing the impact on the environment. Therefore, the client/operating company/investor will receive a detailed digital inspection report of every plant in the shape of a Word or PDF file in which all deficiencies identified are named, described and documented to a large extent by photos. Insofar as the issues affect the operational safety or the stability of the overall structure, impermissible deviations from the nominal condition are recorded and documented in a test report. The inspection report also includes necessary maintenance measures and recommendations for maintenance intervals/deadlines.

In a final inspection report, the deficiencies detected are evaluated with regard to their safety-relevant significance for the continued operation of the WEC and given a deadline for their removal/rectification. In the case of serious deficiencies, the plant operating company will be recommended to shut the WEC plant(s) down until remedial action has been taken.

The inspection report serves as proof of inspection for submission to insurance company or new service provider respectively.