QUALIFICATION AND TRAINING OF NDT FIELD-SERVICE PERSONNEL

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Abstract

Non destructive testing plays an increasing role within the scope of Life Time Assessment (LTA) as well as Life Time Extension (LTE) of major power plant components like steam or gas turbines as well as generators. These components are critical to Power Plant availability, safety as well as its efficiency. Thus, the component surveillance strategy as well as a reliable assessment of the component’s condition after a certain number of operating hours is a prerequisite for reliable life time extension concepts. Performed in time, LTA prevents catastrophic failure and possible personnel injury.

Condition monitoring within the scope of major Power Plant Outages requires reliable NDT examinations of turbine components. Different techniques are used for analyzing surface findings (PT, MT, ET, VT) as well as volumetric defects (UT, RT).

All our NDT personnel working in turbine field service is qualified and certified in different levels according to the EN 473 standard. However, we consider this as a necessary but not sufficient requirement. In order to authorize our NDT staff for field service NDT examinations of critical components additional training and qualification is required. A corresponding training plan includes theoretical as well as practical training in specific NDT methods on selected components. In addition to that the NDT inspector will also attend a training on the job, e.g. NDT inspections during a turbine revision or outage.

This presentation will provide an overview of the Siemens concept of NDT staff training, qualification and finally authorization, which is in line with the requirements of EN 473.

Keywords: Qualification, Training, NDT personnel