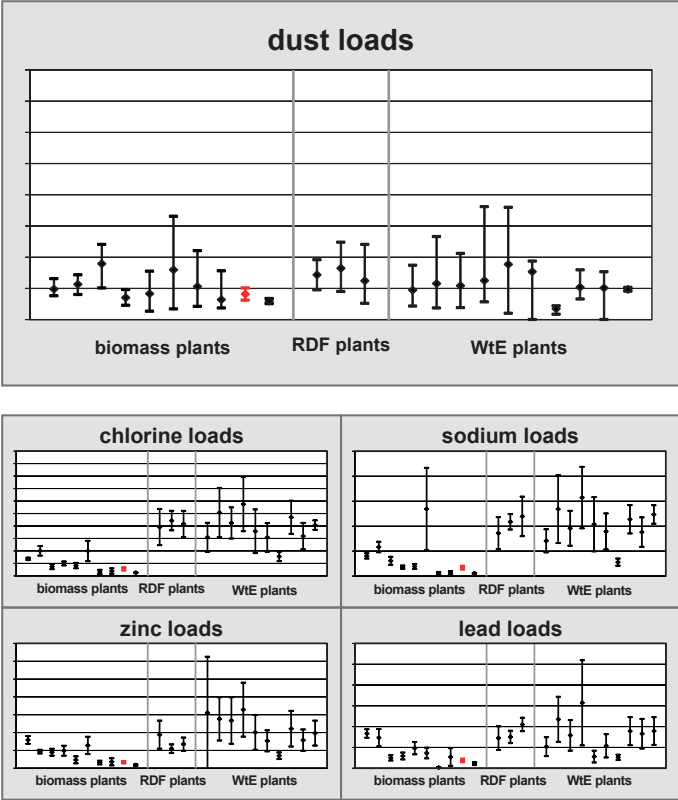


Particle Probe

▶ ASP Ash-Salt-Proportions

- ▶ **Identify Potentials**
Support regarding changes in fuels and process adaptations at preferably regular intervals.
- ▶ **Reduce Corrosion and Fouling**
Recognize the opportunities provided by the boiler design, change the mode of operation and fuel as required.
- ▶ **Avoid Corrosion and Fouling**
Evaluate effects of unavoidable changes in the working process in a timely manner

▶ Classification of the Site »Benchmarking«



► **Construction of a Probe**

- Isokinetic extraction of flue gas particles at the end of the boiler using a sampling probe
- The sampling time ranges between 30 and 60 minutes depending on the given load of particles
- The chemical composition of the extracted flue gas particles is analyzed

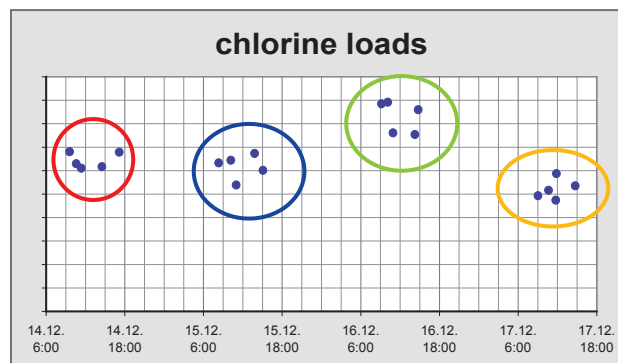
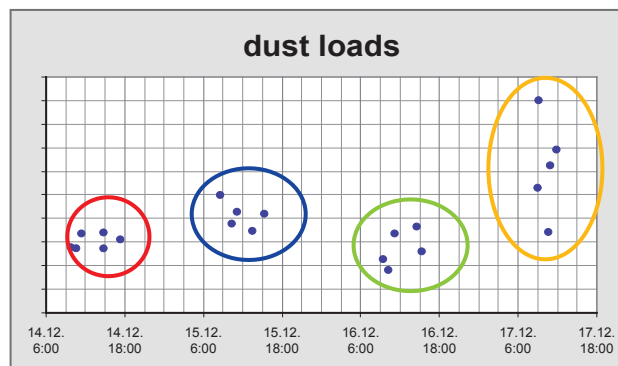
► **Application of the Probe On-Site**

Installation and removal during operation

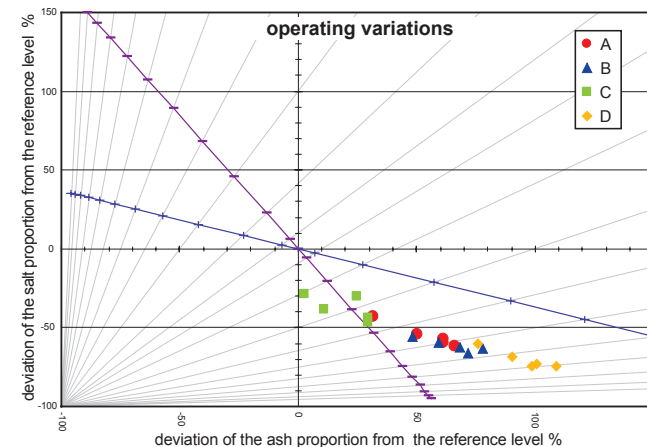
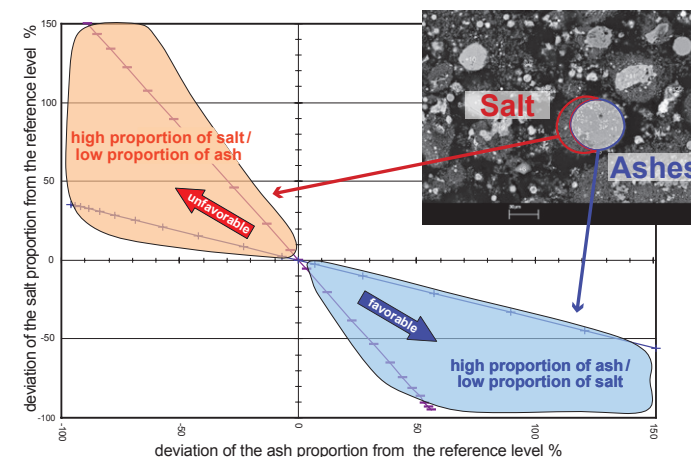


► **Analysis**

- identification of total dust loads in g/Nm
- classification of the site in comparison with other power plants »benchmarking«
- identification of the particle dust load in correlation to the entire dust load
- validation support for the optimization of the operating procedure regarding corrosion and fouling



► **Analysis (ASP-Diagram)**



Taking the chemical composition of each sample the position in the ASP diagram can be calculated. The ASP diagram correlates the “ash proportion” and the “salt proportion” as summative parameters. The favorable and unfavorable variants of fuel and/or firing can be evaluated.