

Measuring Chloride in Power Applications

Introduction

Chloride is highly corrosive to steel. Under the conditions present in power applications, chloride contamination in water and steam can lead to pitting and stress corrosion cracking. It is essential that chloride concentrations throughout the plant be maintained at levels which will minimize or prohibit chloride corrosion. And it is essential to use the proper chloride monitoring techniques and instruments for each concentration range. Hach® analyzers and laboratory analyses can ensure accurate chloride monitoring throughout the plant.

The critical concentrations that lead to chloride corrosion vary based on the operating conditions and materials of construction of the steel components. Steam must be exceptionally pure. Even very low concentrations of chloride in steam can lead to stress corrosion cracking of turbine blades. Boiler water chloride concentrations must also remain low in order to minimize the amount of chloride carried over into the steam. Cooling water equipment can tolerate higher concentrations of chloride than the steam cycle, but is still subject to corrosion at high concentrations.

Hach laboratory, process, and portable analytical solutions for chloride monitoring provide the right measurement for each application.

9525 sc Degas Cation Conductivity Analyzer

The 9525 sc Degas Cation Conductivity Analyzer monitors chloride contamination in steam as a function of conductivity. De-gassed conductivity is the most reliable and sensitive technique for monitoring steam contamination. Chloride conductivity is amplified via cation exchange. The degasser removes carbon dioxide interference.



8810 Chloride Analyzer

The 8810 Chloride Analyzer utilizes a chloride ion selective electrode to measure low levels of chloride in boiler water. Fully automated cleanings, calibrations, and measurements provide accurate low level chloride concentration data.

HQD™ Meter and IntelliCAL™ Probes

Hach HQD meters and versatile assortment of IntelliCAL probes bring simplicity and consistency to electrochemical measurements. The ISECL181 Chloride Ion Selective Electrode can be used to monitor chloride in cooling water.



DR3900 Spectrophotometer and Chemistries

DR-Series Spectrophotometers and Hach chemistries are built on over 7 decades of water quality innovation to provide the most accurate and reliable results. Hach's integrated instrument-chemistry techniques are the industry standard. Method 8113 can be used to monitor chloride in cooling water.

Digital Titrator

The Hach Digital Titrator is a simple and cost effective solution for measuring higher levels of chloride. An ergonomic manual titrator coupled with quality Hach titrants and indicators makes chloride titration a simple operation.



HACH World Headquarters: Loveland, Colorado USA

United States: 800-227-4224 tel 970-669-2932 fax orders@hach.com
Outside United States: 970-669-3050 tel 970-461-3939 fax int@hach.com

hach.com

©Hach Company, 2015. All rights reserved.
In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.



Be Right™