

WATER TREATMENT TECHNOLOGY FOR INDUSTRIAL, COMMERCIAL & ENVIRONMENTAL APPLICATIONS

NOVEMBER 2012 - WATER TREATMENT NEWSLETTER

KWT Assists Midwestern Aircraft Parts Manufacturer – Batch Chromate Treatment System Saves Company \$70,000 per year

A Midwestern aircraft and aerospace parts manufacturer was disposing of chromate containing rinse water off their metal finishing process. This material was a hazardous waste and disposal was costing the company over \$70,000 per year. The company's process engineer identified batch process equipment to convert the Chrome (+6) to Chrome (+3) hydroxide filter cake.

KWT was asked to assist with the implementation of this important project including:

1. Verify the effectiveness of the engineering design.
2. Assist with sourcing the required chemicals, engineering the chemical makedown systems and sizing the chemical pumps.
3. Assist with startup of the equipment including controller setpoint programming and probe calibration.
4. Assist with training of system operators and provide test equipment for process monitoring.
5. Troubleshooting the process as needed.

The treatment process and report of KWT's jar test review and recommendations are found at our website at this link at kansaswatertech.com or remediation-services.com



Jar Testing of Chrome Reduction Process

FOR MORE INFO:



Kansas Water Tech
kansaswatertech.com



Remediation Services Co.
remediation-services.com



Chromate Batch Treatment Equipment

AOP – An Answer for Many Difficult Groundwater and Waste Water Applications

Advance Oxidation Processes have found many applications in groundwater and wastewater treatment. The process is unique in that it uses the (.OH) ion radical as a powerful organic oxidizer. A recent article from Water Conditioning and Purification about AOP is a summary of basics of the technology. The article discusses current and proposed uses of AOP as well as evaluates the various methods used to produce the hydroxyl radical. [Click here](#) for the full article.

Innovative Boiler Treatment - Many Successful Applications in a Variety of Industries and Boiler Designs

Cetamine, a filming polyamine product has recently been introduced in the US market. The product is a multifunctional treatment capable of providing corrosion protection of the entire boiler system and deposit control on the boiler heat transfer surfaces. The product replaces oxygen scavengers in deaerated feedwater and reduces or eliminates neutralizing amines use to buffer condensate. The product has been used successfully in boilers up to 1500 psig and in a variety of industries. Cetamine has also been used in closed loop hydronic heating systems. The advantages of Cetamine are chemical, water and energy savings due to reduced blowdown and more effective condensate corrosion protection. KWT is a supplier of Cetamine in Kansas and Oklahoma.



CETAMINE
**A new treatment
program for
boiler systems**

Click Here
FOR PRODUCT BULLETIN

Its nearly Winter – Are your glycol containing loops freeze protected?

Knowing the properties of ethylene and propylene glycol is critical for the freeze protection of your systems. Glycol concentration and resulting freeze point and burst point data are available at kansaswatertech.com. Routine monitoring of glycol concentration and inhibitor level is recommended. For accuracy use a refractometer to determine glycol content.

Use the following equation to determine the amount of inhibited glycol to add to your system to increase the glycol concentration.

Additional Glycol to add in Gallons = $V_s (P_d - P_t) / (95 - P_t)$

V_s = System Volume

P_d = Percent Glycol Desired

P_t = Percent Glycol Current Test

RO Monitoring – SDI - A Tool for System Design, Monitoring and Troubleshooting

Silt Density Index or SDI is a simple but effective tool that can be used to evaluate the fouling potential of membrane separation technologies particularly RO and Nanofiltration. [Click here](#) for the basics of SDI.

Uses of SDI include:

1. Evaluate potential feedwater streams to determine fouling potential in RO/Nanofilter operation.
2. Evaluate possible pretreatment options for RO/Nanofilter applications. Pilot studies of various pretreatment options may include SDI data.
3. Troubleshooting pretreatment problems.
4. Routine monitoring of RO/Nanofilter feedwater to determine changes in the fouling potential of the feedwater.



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**SDI - A tool for RO
Fouling Potential
Monitoring and
Troubleshooting**

