

#### Water and Process Fluid Purification

# **Our Anniversary Celebration(s)!**

You may recall that *Process Solutions, Inc.* celebrated our 20<sup>th</sup> anniversary in 2014. As part of that celebration, we sponsored a couple of Customer Appreciation Events last summer.

In July we hosted an event at Great American Ball Park where we ate, drank, and watched our Cincinnati Reds play the Washington Nationals. In addition to the ball game, we were treated to a pre-game race between the Reds mascots and the Washington Nationals Racing Presidents! It was a fun afternoon!

In August we hosted a Day at the Races at Ellis Park in Henderson, KY for our customers in Southern Indiana and Western Kentucky. Again, an afternoon of food, drinks, and fun watching the horse races (and a little betting besides!)

We would once again like to take this opportunity to thank all of you who have contributed to our success over the last 20 years (now almost 21!) with your confidence in us and your continued business. We couldn't have done it without you!!





# More Bang for the Buck\$!

So far, the theme for 2015 has been reclaim opportunities. Water conservation is a hot topic, and more and more plants are looking at minimizing the amount of water that goes down the drain. We've had a significant amount of interest in RO systems to recover the concentrate from primary RO systems, and a number of requests around brine reclaim for water softener systems (this one is inexpensive to implement and the ROI is a matter of months!).

With city water and sewer costs continuing to rise, the economics of recovering and reusing water have been steadily improving. If you have a potential reclaim application you would like to explore, please give us a call at **513-791-3338**. We're happy to help!

#### About Our Organization...

At **Process Solutions, Inc.** we're committed to being your full-service supplier of water treatment products, systems and services. We do this by providing our customers with high quality products, great service and *all at competitive prices*. Please feel free to call us with your feedback and suggestions as to how we can be of service to you.

# **New UV Technology!**

For those who use ultraviolet sterilizers either for disinfection, TOC reduction, or ozone destruct, there is an innovation in UV technology you may wish to consider. *NeoTech Aqua Solutions* produces high-efficiency UV systems that utilize their patented ReFleX<sup>TM</sup> technology to provide the highest efficiency, smallest footprint, and lowest operating cost UV systems in the water treatment industry.

The ReFlex<sup>TM</sup> technology maximizes UV dosing in a patented 99% reflective chamber, which also reduces the number of lamps required and power requirement by up to 90% compared to conventional UV systems. This translates into fewer lamps, smaller footprint, and less maintenance over the life of the system. Additionally, these units come with a "No Flow, No Problem" guarantee for up to 60 minutes, so if flow is lost, the unit will not be damaged.

Because the ReFleX<sup>TM</sup> chamber provides a reliably uniform dosage throughout the UV chamber with no baffles or dead-legs, microorganisms and organics are completely destroyed. These systems are sanitizable in place using either hot water or steam, and can also be chemically sanitized in a CIP loop.

In cases where floor space is at a premium, the units may be mounted either vertically or horizontally, and up to four units may be controlled with a single control box.

For low flow applications, these units are higher priced than the conventional systems, but the operating costs are more attractive. At higher flows, the initial investment becomes more competitive with conventional UV technologies, and the operating cost savings becomes more significant as well.

If you would like additional information on any of these products, please contact your *Process Solutions, Inc.* sales representative!

## It's That Time Again...!

Our favorite membrane training seminars will be back this fall!! Good to the Last Drop...A User's Guide to Membrane Technology will be offered again the week of September 14, 2015, locations and dates as follows:

September 15, 2015	Indianapolis, IN
September 16, 2015	Louisville, KY

September 17, 2015 Cincinnati/Dayton, OH

These are hands-on, practical and technical seminars for those trying to get the most productivity from their membrane systems. The presentation will focus on optimizing membrane life and system performance; and will address such topics as system operating guidelines, pretreatment, optimizing your cleaning techniques, troubleshooting, and controlling biological contamination.

As always, Avista Technologies and Dow Water and Process Solutions will be participating, sharing their insights and expertise in membrane applications.

Invitations will be going out when the time gets closer, but please pencil in these dates on your calendar. In the meantime, if you have questions or want further information, please contact us at **513-791-3338**!



New UV technology from Neotech Aqua Solutions



"Good to the Last Drop" is coming again in September 2015!

#### See Inside Your Membranes!

You're standing in front of your RO system trying to figure out what's going on in there – specifically with regard to fouling. Until now, the only options were to guess (not the best analytical technique) or to sacrifice a membrane for autopsy. You now have the ultimate troubleshooting tool – the Black Box from *Avista Technologies*!

While it looks like an ordinary toolbox, it is much, much more. The Black Box is a stand-alone self-contained monitoring device designed for use as an on-site tool to analyze RO system performance without interrupting the operation of your system. It is equipped with the same membrane as your full scale system and simulates the performance of the membrane at the closest sampling location. At the end of the study period, the unit is returned for a diagnosis of membrane performance. The Black Box can be connected to the system in several locations:

<u>Feed</u> – to analyze the potential for colloidal fouling, biological fouling, organic fouling, scale formers, or oxidants.

<u>Interstage</u> – to detect problems that are difficult to identify in the feed or concentrate streams or to find a unique interstage foulant deposit

<u>Concentrate</u> – to identify potential scale formers, evaluate antiscalant performance, or optimize recovery rates.

Avista's Black Box made its public debut last year at AWWA/AMTA. "What's inside?" was the most common question from curious onlookers of the instrument. In essence, the Black Box acts as a microcosm for membrane system operation and performance, and was named by *Water Online* as one of the "Best Bets in Membrane Technology".

The Black Box is self-contained and designed to be maintenance-free. For the initial installation, the Black Box inlet is connected to a sample port on the RO system at the location where membrane performance is to be monitored. The concentrate and permeate lines are directed to the drain.

The Black Box can be installed in minutes and additional units can be used to achieve multiple goals. Flows and conductivities can be measured and recorded to track membrane performance; differential pressure is determined with an internal gauge and permeate conductivities can be measured to verify membrane performance. At the end of the study, the membrane sample can be used for foulant analysis, cleaning study, or a variety of analytical processes.

So, if you're struggling with a pesky foulant, trying to optimize your clean-inplace procedures, or identifying a potential design issue, the Black Box may be the ultimate analytical tool for you! For further information or if you're interested in setting up a Black Box on *your* system, please contact your **Process Solutions, Inc.** sales representative.



The Black Box from Avista Technologies



### Who Says It's Not Easy Being Green?

If you would prefer to save a tree and receive our newsletter electronically, please email us at sales@psiwater.com and we'll add you to our electronic distribution list. Thank you!

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