

National Water Research Institute

February 28, 2008 E-Newsletter

Early Registration Ends March 3, 2008, for NWRI Workshop on UV for Wastewater and Reuse

Register for NWRI's "UV for Wastewater and Reuse Workshop," which will provide tools and resources to implement cost- and performance-effective UV systems as reliable treatment technologies for waterborne pathogens. The early registration deadline date is March 3, 2008.

The workshop, held by NWRI, International Ultraviolet Association, and WateReuse Florida, will cover the following topics:

- Disinfection and Public Health Relevance
- Disinfection Basics
- Public Health Protection
- Certification Process
- Impacts of Pretreatment
- Impacts of Secondary Process and Filtration
- Design and Control
- Capital Costs and Operations Costs
- Commissioning
- Advanced Treatment Applications
- Operator Issues and Troubleshooting

The workshop will be held at the Wyndham Orlando Resort in Orlando, Florida, on March 18, 2008.

Please visit www.nwri-usa.org/uvworkshop to register or to download the brochure and preliminary program.

Report Available on Cross Flow Sampler Fouling Index

NWRI is pleased to announce its newest downloadable publication, *Cross Flow Sampler Fouling Index*, prepared by Dr. Samer Adham of MWH Americas, Inc., and Dr. Anthony Fane of the University of New South Wales.

Particulate fouling of reverse osmosis (RO) and nanofiltration membranes during water and wastewater treatment is a major concern as it can affect cost and efficiency. The most commonly used indices for determining the suitability of feedwater for RO treatment are the silt density index (SDI) and the modified fouling index (MFI), both of which are widely used, but are not considered representative of the particulate fouling potential of RO feedwater in all cases.

The 22-page report, based off of research funded by NWRI, examines the development of a novel method that can be considered as a more representative index of particulate RO fouling. The method investigated uses a cross flow sampler operating under similar cross flow conditions that represent most RO processes, with the objectives of 1) determining the influence of SDI and MFI for different source water types and 2) comparing with standardized indices.

The report includes:

- Materials and methods, including feed water, cross flow sampler set up, SDI, and MFI.
- Challenges in measurement techniques, including control experiments with deionized water and deionized water and sodium hypochlorite.
- Results and discussion, including influence of conventional pretreatment, loose microfiltration/tight conventional pretreatment, microfiltration pretreatment, and tight UF pretreatment.

To download this final project report, please visit www.nwri-usa.org/e-publications.

NWRI Winter Newsletter Available Online

NWRI has released its Winter 2008 *Briefings* newsletter, which includes articles on the following:

- Penn State Student Awarded the First Ronald B. Linsky Fellowship
- NWRI's Newest White Paper Addresses Reliability Actions for Policymakers and Water Managers
- Spotlight on the West Basin Municipal Water District: An Autumn Festival with a Watery Twist
- Meet Our Newest Research Advisory Board Members: Dr. William Cooper and Dr. Steven Duranceau
- Report Available on Effects of Scaling and Colloid Deposition on Reverse Osmosis
- Remembering Dr. Kenneth K. Tanji, Irrigation and Salinity Expert
- O.C. Water Camp: Summer Fun with Water Science
- NWRI Holds Asset Management Workshop to Improve Utility Effectiveness and Sustainability

To be added to NWRI's mailing list for printed newsletters, please email your contact information to Gina Melin Vartanian at gmelin@nwri-usa.org. The newsletter is available online at www.nwri-usa.org/Newsletter.

Second Annual NWRI Graduate Fellowship Research Conference

NWRI will hold its Second Annual NWRI Graduate Fellowship Research Conference on Friday, April 4, 2008, in Washington DC. The conference will feature 18 student speakers who are conducting new research in areas such as drinking water quality and climate change, treating co-produced water using novel integrated membranes, producing high-efficiency hydrogen gas using microbial electrolysis cells, and more.

Conference sponsors include the Joan Irvine Smith & Athalie R. Clarke Foundation, American Membrane Technology Association, and NWRI's Corporate Associates:

- Boyle Engineering
- Cargill, Inc
- Carollo Engineers
- CDM
- Kennedy/Jenks Consultants
- MWH
- Malcolm Pirnie, Inc.

For more information, please www.nwri-usa.org/gradconference. Those interested in attending may contact Tammy Russo at trusso@nwri-usa.org.

