

# POTW Nutrient Reduction and Efficiency Conference

## January 12 - 14, 2010

### Evansville, Indiana

Evansville Airport Marriott  
7101 Highway 41 North  
Evansville, IN 47725  
(812) 867-7999

## Day 1, Tuesday, January 12, 2010

- 11:00 am Registration and Check-in
- 12:00 pm Opening/Welcome, Day 1  
Peter Tennant, Deputy Executive Director, ORSANCO
- 12:15 pm Drivers of Ongoing Nutrient Reduction and Efficiency
- **Achieving a Better Performing POTW**  
Russell Martin P.E., EPA Region 5
  - **Why Nutrient Removal?**  
Julian Sandino, Ph.D., P.E. CH2M Hill
  - **The Case of/for Nutrient Control, A National Perspective for Nutrient Control and Efficiency from Point Sources**  
Sharon E. Hayes, EPA Office of Wetlands, Oceans and Watersheds
  - **What Has Happened in the Gulf of Mexico?**  
Phil Bass, EPA Gulf of Mexico Program
- 1:40 pm Actions in Agriculture to Address Nutrients
- **Actions that are being Implemented by Agriculture to Reduce Nutrient Loadings**  
Karen Scanlon, Conservation Technology Information Center
  - **Nutrient Load Reduction Efforts in Iowa Agriculture**  
Roger Wolf, Iowa Soybean Association
- 2:30 pm Break
- 2:45 pm Federal Technical Resources on Nutrient Control and Removal
- **Municipal Nutrient Removal Technologies Reference Document**  
Phil Zahreddine, EPA Office of Wastewater Management
  - **State Progress in Adopting Nutrient Criteria into Water Quality Standards**  
Suzanne Rudzinski, EPA Office of Research and Development
  - **ORD's Technology Transfer for POTW Nitrogen and Phosphorus Control**  
Russell Martin, EPA, Region 5, Water Division, NPDES Branch

- 4:00 pm Case Studies: Nutrient Control and Performance Improvement
- **Nutrient Control and Performance Improvement at the Upper Mill Creek Wastewater Treatment Plant**  
Dave Wilson, Butler County Department of Environmental Services
  - **Thinking Out of the Box for Greatest Plant Efficiency at the Mobile Alabama Wastewater Treatment Plant**, Kevin White, Ph.D. Mobile, University of South Alabama
  - **Sustainable Approaches to Nutrient Removal and Recovery**, Beverley Stinson, Ph.D., AECOM

5:20 pm Recap and Adjourn

5:30 - 7:30 Reception /Exhibits (Exhibit Area)  
A hospitality social will be held in the exhibit area and is sponsored by the Illinois Rural Water Association, Alliance of Indiana Rural Water and ORSANCO.

## Day 2, Wednesday, January 13, 2010

8:00 am Opening/Welcome, Day 2  
Jessica Hamblin, Indiana Department of Environmental Management  
Charles Corley, Illinois Environmental Protection Agency

8:15 am Biosolids Reduction

- **State of the Practice for Biosolids Reduction**  
Julian Sandino, Ph.D., P.E., CH2M Hill
- **Maximizing Energy Recovery from Municipal Wastewater Treatment Plant Residuals**  
Jim E. Smith, Jr., Sc.D., EPA Office of Research and Development

10:15 am Break

10:30 am Biosolids Reduction, cont.

- **Sludge and Energy Cost Savings Evaluation, Fishers, Indiana**  
Terrence Boyer, Clark Dietz, Inc
- **Improved Anaerobic Digestion and Methanol Replacement Via Focused Pulsed Treatment of Wastewater Sludge**  
James E. Banaszak, Ph.D., OpenCEL, LLC

11:30 am Treatment Process Efficiency

- **Energy Efficiency Opportunities at POTWs**  
Joseph Cantwell, P.E., SAIC

12:15 pm Lunch

- 1:00 pm Treatment Process Efficiency, cont.
- **Energy Efficiency Projects at the Sheboygan Regional Wastewater Treatment Plants, Sheboygan, Wisconsin**  
Dale Doerr, Sheboygan Wastewater Treatment Plant
  - **Challenges in Plant Operations to Produce Greater Efficiency and Environmental Benefits**  
Rusty Schroedel, AECOM
- 2:00 pm Nutrient Recovery
- **Sustainable Nutrient Recovery from Wastewater Streams**  
Matt Kuzma, Ostara Nutrient Recovery Technologies
  - **Algal Turf Scrubber Technology, Growing Algae as Part of the Process with Potential for use as Cellulosic Biofuel**  
Mark Zivojnovich, HydroMentia
  - **Ammonia Recovery Process for Nutrient Control**  
Alex Fassbender, ThermoEnergy/CASTion
  - **Activities at the Gwinnett County POTW to Utilize Less External Energy and Preserve a Watershed's Integrity**  
Richard Porter, Gwinnett County Wastewater Management Agency
- 3:30 pm Break
- 3:45 pm Case Studies: Retrofit Processes and New Technologies
- **Study of Removal Processes Select Comag, to Meet Concord, Massachusetts' Stringent New Limits**  
Bob Backman, Cambridge Water Technologies
  - **City of Delphos MBR/ThermAer Operations**  
Kim Riddell, Delphos, Ohio Wastewater Treatment Plant
  - **Experiences at Mason City Ohio**  
Bob Beyer, City of Mason, Ohio  
Al Aspacher, ARCADIS
  - **Reducing Energy Consumption with an Innovative Mixing Technology**  
Neil Massart, Black and Veatch
- 5:15 pm Recap and adjourn

## Day 3, Thursday, January 14, 2010

- 8:00 am Opening/Welcome  
Bill Melville, EPA Region 4
- 8:10 am Financing Advanced Technologies for Nutrient Reduction
- **Use of State Revolving Funds, SRF, for Advanced Treatment Technologies**  
Andrew Bielinski, EPA, Region 5, State and Tribal Program
  - **How Municipalities Can Access Capital in Tough Times**  
Gene Rogero, Siemens Financial Services

9:00 am

Nutrient Trading

- **Nutrient Trading as a Means of Lowering Costs**  
Mark Kieser, Environmental Trading Network
- **CTIC Targeted Watershed Grant**  
Karen Scanlon, Conservation Technology Information Center
- **Ohio River Basin Trading Program for Nitrogen and Phosphorus**  
Jessica Fox, Senior Scientist, Electric Power Research Institute

10:15 am

Break

10:30 am

Wetland Applications

- **Treatment Wetlands for Nutrient Control: Performance, Benefits and Constraints**  
James S. Bays, Principal Scientist, Natural Treatment Systems, CH2MHill
- **Using Constructed Wetlands for CSO Control**  
D. Scott Rainey, Washington, In  
Mark L. Harrison, Bernardin, Lochmueller & Associates, Inc.
- **Capabilities of Constructed Wetlands to Support Municipal Treatment Systems**  
James Kreissl, Independent Consultant

12:30 pm

Wrap-up and Closure/Next Steps

Peter Tennant, ORSANCO