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WCWC Bulletin



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Dr. Saad Jasim elected as Chair, International Ozone Association - Pan American Group

Dr. Saad Jasim, CEO of the Walkerton Clean Water Centre, has been elected as Chair of the International Ozone Association-Pan American Group (IOA-PAG.) Dr. Jasim's two-year term as Chair will begin in January 2010.

Prior to Dr. Jasim's current position, he served as Director, Water Quality and Production for the Windsor Utilities Commission. He proposed, and successfully implemented ozone for drinking water treatment in Windsor, Ontario, making Windsor the first municipality to have water treated with ozone available to all residents, and to the residents of two other municipalities.

Dr. Jasim currently serves as the Vice President of the Ontario Water Works Association, and is a Member of the Council of Great Lakes Research Managers with the International Joint Commission, and a member of the NSF Joint Committee on Drinking Water Treatment Units - NSF International.

Membership participation in IOA programs is conducted through one of three regional groups. All members in North, Central and South America receive their membership services from and belong to the Pan American Group. All members in other countries, excluding Japan, receive their membership services from and belong to the European African Australasian Group (EA3G.) The Nippon Islands Group handles membership and services for Japan.

We're moving!

Work continues at the new home of the Walkerton Clean Water Centre, which will house offices, classroom training space and the Technology Demonstration Facility under one roof. The state-of-the-art building is scheduled for completion later this month.

The new facility will be located at 20 Ontario Road, Walkerton. All other contact information will remain the same.



Ontario's drinking water safety net receives national award

Ontario's Ministry of the Environment is putting the province centre stage as a national leader in drinking water protection.

The ministry's Drinking Water Management Division (DWMD) recently won a national award for its role in transforming Ontario's approach to drinking water protection, through the establishment and implementation of an innovative and strategic drinking water protection model known as Ontario's drinking water safety net. The Institute of Public Administration of Canada (IPAC) Silver Award for Innovative Management was accepted by John Stager, Ontario's Chief Drinking Water Inspector, at IPAC's annual conference and awards ceremony on August 25th in Fredericton, New Brunswick.

Following the tragic events in Walkerton in May 2000, Ontario transformed its approach to drinking water protection moving from strict regulatory command and

control to a pragmatic and strategic approach. Using the guiding principle of a multi-faceted approach, DWMD developed a unique framework for drinking water management. The result is the drinking water safety net – a robust model that guides the government's delivery of safe drinking water. It is a living, evolving model reflecting the belief that providing safe drinking water is a shared responsibility, and that actively engaging drinking water partners and the regulated community enhances consumer protection and maximizes compliance.

Established in 1990, IPAC's prestigious national awards are co-sponsored by IBM Canada and KPMG and serves to recognize exceptional management within the public sector. The DWMD submission was selected from among 92 IPAC received from across the country.

Find out more about Ontario's drinking water at www.ontario.ca/drinkingwater.



MOE's Drinking Water Management Division received a Silver Innovative Management Award from the Institute of Public Administration of Canada for Ontario's drinking water safety net.

DWMD representatives attended an awards ceremony at IPAC's annual conference on August 25th in Fredericton, New Brunswick. From left to right: John Stager (Chief Drinking Water Inspector and Assistant Deputy Minister of the DWMD), Paul Nieweglowski (Director of the Safe Drinking Water Branch), Orna Salamon (Director of the Drinking Water Programs Branch), and Jim Smith (Adjunct Professor, School of Policy Studies, Queen's University).



The Walkerton Clean Water Centre is hosting

“SAFE DRINKING WATER: LESSONS FROM OUTBREAKS”

Thursday, October 15th, 2009 from 8:30 am to 4:00 pm
at the Toscana Banquet and Convention Centre, Vaughan, Ontario
(Registration and continental breakfast begins at 7:45 am)

A seminar presented by Dr. Steve Hrudehy

Dr. Hrudehy is currently Professor Emeritus at the University of Alberta. His areas of expertise include drinking water safety, environmental contaminant exposure assessment, approaches for health risk assessment, risk management and risk communication. Dr. Hrudehy has served on several expert panels, including the Research Advisory Panel to the Walkerton Inquiry from 2000 to 2002. He has authored or co-authored more than 150 refereed journal articles and over 100 other publications in the environmental sciences.



Seminar overview

The technical and scientific content of this seminar draws on Hrudehy's 2004 book, co-authored with Elizabeth J. Hrudehy, *Safe Drinking Water – Lessons from Recent Outbreaks in Affluent Nations*, a best seller with International Water Association Publishing of London. The book began as a small scale analysis of recurring themes in documented outbreaks in affluent countries, prepared for the benefit of the Research Advisory Panel to the Walkerton Inquiry, and eventually grew into a comprehensive analysis of over 70 case studies from 15 industrialized nations around the world. This seminar is intended to make individuals think about the responsibility they hold for providing drinking water to the public. Other themes that will be addressed include: safe water, what it is and is not; multiple barrier approach; key water quality concepts; the distinctions between hazards, hazardous events and risk; and learning from experience.

Target audience

Drinking water professionals, including managers, consultants, engineers, operators and municipal officials. *Certificates will be issued for 0.6 CEUs.*

Cost: \$150.00 + \$7.50 GST = \$157.50 (lunch and refreshments during breaks included in cost)

To register online or by mail, go to www.wcwc.ca - Specialized Courses

Hotel Accommodations

Special room rates (\$139.00/night) for seminar attendees available at Hilton Garden Inn Vaughan

3201 Highway 7 West, Vaughan, Ontario

For reservations call: 905-660-4700 or Toll Free: 888-269-4115

Price available until September 25, 2009

(quote Walkerton Clean Water Centre for group rate code WLK)

If you have any questions or would like further details, please contact Kelly Fransen by email kfransen@wcwc.ca or by telephone 519-881-2003 ext. 303

Graduate course delivered at the Walkerton Clean Water Centre



Graduate students at work in the Technology Demonstration Facility

This past August, 27 graduate students completed a course at the Walkerton Clean Water Centre.

The course, created three years ago by the University of Western Ontario and the Centre, and in partnership with Trojan Technologies, teaches students about the latest technologies in drinking water treatment. It consists of two weeks of lectures at the University, followed by four days of hands-on training at the Centre.

The course exposes students to the latest technologies at the Centre's Technology Demonstration Facility and provides hands-on experience in operating and troubleshooting, experience that may prove invaluable if students pursue careers working with water systems in the future.

Dr. Saad Jasim, CEO of the Walkerton Clean Water Centre, described the program, "We try to teach students on some of the industrial concepts and the vast technologies used in drinking water so when they go to industry they are prepared."

Over the past three years, the course has grown both in popularity and the range of fields from which it draws students. Course participants may come from disciplines such as civil, environmental, chemical, biochemical, mechanical and electrical engineering.

WCWC launches newest Mobile Training Unit

The Walkerton Clean Water Centre will be launching the newest Mobile Training Unit (MTU) on October 1st at the RES'EAU WaterNET Knowledge Transfer Workshop in Toronto. The workshop will gather Canadian experts to discuss the scientific and technological challenges of delivering safe drinking water and will serve as an opportunity for small system operators, utility managers and other stakeholders to provide input and identify barriers to the adoption of best practices in water treatment and management. The event is also a national forum for students and young professionals working in water research and technology development to discuss their efforts with their peers. Participants at the event will be able to tour the MTU and learn more about the course offered onboard.

The addition of a third MTU will allow the Centre to offer mobile hands-on training in Southern Ontario. The first two units are currently serving Northwestern and Northeastern Ontario, where training is delivered by Confederation College in Thunder Bay and Sault College in Sault Ste. Marie.

For more information on the new MTU, please visit <http://www.wcwc.ca/en/smallsystemsoutreach/mobileunit1.asp>

RES'EAU WATERNET

An NSERC Small Water System Strategic Network

RES'EAU WaterNET Knowledge Transfer Workshop Toronto Marriot Bloor-Yorkville October 1-2, 2009

RES'EAU-WaterNET is Canada's first and only organization devoted exclusively to developing innovative, low-cost technologies for providing clean drinking water to small, rural and First Nations communities.

Join us for our inaugural two-day network event as we gather Canadian experts to discuss the scientific and technological challenges of delivering safe drinking water in these settings.

All First Nations water systems in Canada are considered small, rural or remote. The second day of this workshop will focus on issues and challenges with sustainable clean and healthy water in First Nations communities.

Featured speakers will include:

- **John Stager**, Assistant Deputy Minister for the Ontario Ministry of the Environment, the Ontario Chief Drinking Water Inspector
- **Phil Fontaine**, Past AFN National Chief
- **Dr. Mark Servos**, Scientific Director, Canadian Water Network
- **Dr. Saad Jasim**, Chief Executive Officer, Walkerton Clean Water Centre
- **RES'EAU WaterNET researchers**, who are some of Canada's top thinkers in water research
- **Community representatives, operators and health officers** from First Nations communities

Sessions and panel discussions will focus on:

- The importance of knowledge transfer, and why every researcher needs to make it an integral part of what they do
- Challenges of sustaining water quality
- Technological needs and challenges for small communities
- Implementation and operational issues... and more!

**Seating is limited – Please RSVP and confirm your registration today.
View the full program and register today:**

www.reseauwaternet.ca

Our Sponsors:



WCWC training initiatives

The Walkerton Clean Water Centre has recently introduced a number of new specialized courses its inventory, including:

Energy Management in Drinking Water Systems

This course is designed to provide participants with an understanding of the importance of Energy Management Planning and Energy Audits. The course will provide practical approaches for reducing energy usage and costs while mitigating impacts of climate change. Other areas of study include: barriers to energy management; risks arising from lack of energy management and their identification, characterization and communication; seven steps for reducing energy costs; alternative treatment strategies from an energy consumption standpoint; water conservation programs; how to conduct an Energy Audit and prepare Energy Management Plans. The course will be valuable for municipal staff involved in energy management planning and energy reduction, government officials responsible for water management and conservation programs, operators, designers and managers of water treatment plants, plant inspectors and compliance officers, product suppliers and manufacturers, students, academics, and researchers.

Safe Drinking Water - Lessons from Outbreaks

This course draws on Dr. Steve Hrudehy's 2004 book, *Safe Drinking Water - Lessons from Recent Outbreaks in Affluent Nations*. The book began as an analysis of recurring themes in documented outbreaks, prepared for the Research Advisory Panel to the Walkerton Inquiry, and eventually grew into a comprehensive analysis of over 70 case studies from 15 industrialized nations around the world. Themes that are addressed include: safe water, what it is and is not; the multiple barrier approach; key water quality concepts; the distinction between hazards, hazardous events and risk; and learning from experience. This course will be of interest to drinking water professionals, including managers, consultants, engineers, operators and municipal officials.

Drinking Water Treatment and Troubleshooting Techniques

This course will cover operational issues related to a wide range of conventional and advanced drinking water

treatment technologies typically found in municipal facilities. The recognition of warning signs and troubleshooting of processes are emphasised. Common problems associated with raw water quality fluctuations are also discussed. Other topics include dealing with disinfection by-products, emerging contaminants, and waterborne disease outbreaks. This course is geared to advanced drinking water treatment operators (Classes II - IV), but it will also be of interest to engineers, water treatment professionals, and inspectors. It is not recommended for personnel using groundwater exclusively.

Membranes for Drinking Water Treatment

This course will provide the technical background necessary to better operate membrane systems used for drinking water treatment. Topics covered include: membrane classification; membrane system performance; flow through membranes; membrane fouling and control strategies; membrane integrity testing (MIT.) The course includes computer models, specifically developed for training, to illustrate membrane fouling and MIT, as well as strong hands-on components to allow the practice of fouling control and MIT. This course will be of interest to operators and managers of water treatment systems, college and university students, and junior and entry-level design engineers.

Drinking Water Source Protection for Groundwater Systems

This course will provide participants with a general understanding of drinking water source protection for groundwater systems. The course is based on the Clean Water Act (2006) and associated regulations and Directors Rules and covers: geology and hydrogeology; survival and transport of waterborne pathogens in groundwater systems; groundwater under the direct influence of surface water; introduction to the Clean Water Act; the Assessment Report (Directors Rules, December 2008); development and implementation of a Drinking Water Source Protection Plan. This course is directed to water operators experienced with groundwater systems, supervisors, managers, compliance officers, engineers, and consultants. The course would also be valuable for project managers and municipal councilors.

Upcoming courses

Basic Chemistry for Water Operators

November 12, 2009, Kingston, Ontario

Basic Chlorination and Disinfection

November 13, 2009, Kingston, Ontario

Basic Coagulation & Flocculation

December 15-16, 2009, Walkerton, Ontario

Cross Connection & Backflow Prevention

October 27, 2009, Kingston, Ontario

November 17, 2009, Kitchener, Ontario

December 8, 2009, Oakville, Ontario

CT Requirements for Chlorine Disinfection

November 4, 2009, Barrie, Ontario

November 18, 2009, Peterborough, Ontario

Current Studies in Water Plant Operations

October 14, 2009, Rainy River, Ontario

Disinfection of Watermains

November 18, 2009, Kitchener, Ontario

Drinking Water Source Protection for Groundwater Systems

October 8, 2009, Barrie, Ontario

December 3, 2009, Walkerton, Ontario

Drinking Water Treatment & Quality Monitoring

October 13, 2009, Rainy River, Ontario

Energy Management in Drinking Water Systems

November 10, 2009, Cornwall, Ontario

November 17, 2009, London, Ontario

Entry-Level Drinking Water Operator Course

For Operators-in-Training

October 5-9, 2009, Toronto, Ontario

October 19-23, 2009, Peterborough, Ontario

October 26-30, 2009, Etobicoke, Ontario

November 2-6, 2009, Kitchener-Waterloo, Ontario

November 16-20, 2009, Sarnia, Ontario

November 23-27, 2009, Ottawa, Ontario

December 7-11, 2009, Etobicoke, Ontario

December 14-18, 2009, Toronto, Ontario

Fire Hydrant Inspection & the Ontario Fire Code

October 7, 2009, Timmins, Ontario

November 18, 2009, Ottawa, Ontario

Formation and Control of Disinfection By-Products

October 29, 2009, Smiths Falls, Ontario

Fundamentals of Leak Detection

November 19, 2009, Ottawa, Ontario

(Continued on page 8)



Training at the Walkerton Clean Water Centre

Upcoming courses (continued)

Groundwater, Wells & Well Pumps

December 1-2, 2009, Walkerton, Ontario

Internal Auditing for the Drinking Water Quality Management Standard

November 5-6, 2009, London, Ontario

Introduction to SCADA Systems

October 22, 2009, Pembroke, Ontario

November 19, 2009, Barrie, Ontario

Managing Water Quality in Distribution Systems

October 21, 2009, Ottawa, Ontario

October 29, 2009, Timmins, Ontario

November 3, 2009, Peterborough, Ontario

November 10, 2009, London, Ontario

Ozone Design, Operation and Optimization

October 20-21, 2009, Burlington, Ontario

Safe Drinking Water Act & Related Regulations

November 5, 2009, Pembroke, Ontario

Safeguarding Drinking Water Quality (Certificate Renewal Course)

October 7, 2009, Dryden, Ontario

October 20, 2009, Walkerton, Ontario

October 21, 2009, London, Ontario

October 28, 2009, Timmins, Ontario

October 29, 2009, Etobicoke, Ontario

November 3, 2009, Ottawa, Ontario

November 4, 2009, Windsor, Ontario

November 10, 2009, Kitchener, Ontario

November 18, 2009, Brampton, Ontario

November 18, 2009, Niagara, Ontario

November 25, 2009, Barrie, Ontario

December 2, 2009, London, Ontario

December 8, 2009, Thunder Bay, Ontario

December 10, 2009, Toronto, Ontario

December 17, 2009, North York, Ontario

Tapping Watermains

October 8, 2009, Kenora, Ontario

October 14, 2009, Sault Ste. Marie, Ontario

October 21, 2009, Tecumseh, Ontario

October 28, 2009, Kingston, Ontario

December 9, 2009, Oakville, Ontario

Treatability Studies & Jar Testing

October 15, 2009, Rainy River, Ontario

Water Quality Analyst

October 14-16, 2009, Walkerton, Ontario

Water Valve Operation and Maintenance

October 6, 2009, Timmins, Ontario

November 17, 2009, Ottawa, Ontario

Watermain Breaks and Repairs

October 15, 2009, Sault Ste. Marie, Ontario

November 12, 2009, Thunder Bay, Ontario

November 26, 2009, Tecumseh, Ontario

Watermain Flushing & Swabbing

October 20, 2009, Tecumseh, Ontario

November 13, 2009, Thunder Bay, Ontario

December 10, 2009, Oakville, Ontario

Please check our website for course details and the most up-to-date course schedule

Contact information

For more information on the WCWC Bulletin, please contact Katherine Campbell, Education & Outreach Coordinator
kcampbell@wcwc.ca 519-881-2003 or 1-866-515-0550 ext. 321

To inquire about bringing any of our courses to your location, please contact Corinne Louter, Drinking Water Training Coordinator
clouter@wcwc.ca 519-881-2003 or 1-866-515-0550 ext. 312