



## **CONFERENCE 2010 ABSTRACTS**

### **WORKSHOPS (WS)**

#### **WS #1 Regulations, Permits to Operate & Operator Certification:**

Saskatchewan is adopting a new, results-based model for environmental regulation that will improve protection of the environment, while promoting innovative new tools in environmental management. The current regulatory regime was developed in the early to mid-1970's and consisted almost entirely of prescriptive legislation and regulations that directed agency inspections and enforcement when contraventions were identified.

The Ministry of Environment (MOE) regulates drinking water and wastewater at nearly all of Saskatchewan's villages, towns and cities. To accomplish efficient and safe regulation of water and sewer, MOE's Environmental Protection and Audit Division contains the Municipal Branch which has two main sections: the Environmental Protection Services Section that reviews plans and projects to issue one-time Permits to Construct, and the Environmental Services Section which issues ongoing Permits to Operate water and sewer works.

In the area of operator certification there has been a request by the federal government for an Agreement in Trade within the Labour Mobility Act. The Canadian Water and Wastewater Operator Certification Committee has been working with the Association of Boards of Certification to develop the Canadian Best Practices which will form the bases for reciprocity between the provinces and territories. These practices will be outlined and changes addressed within this presentation. Present requirements will also be discussed.

The presentation will explain organization, legislation, permitting requirements, guidelines and timelines for the regulation of construction and operation and certification of drinking water works and wastewater works in the province of Saskatchewan.

*Presented by Frank Reid, P.Eng., Gary Papic and Rod Broadfoot, Ministry of Environment.*

#### **WS #2 SCADA Solutions Enhance Productivity of Water Utilities:**

Efficient monitoring of even a well-developed water distribution network with good operating practices has long been a challenge for management. Improper system management might result in problems such as, increased costs, insufficient water, inconvenience, unsatisfied customers, and excessive or misuse of water and more. To minimize these problems water utilities must improve their system operation based on real time data communicated to a control center.

Supervisory Control and Data Acquisition (SCADA) solutions as an integrated part of utility-wide water management program may significantly improve the system effectiveness. Key workshop topics include:

- Remote plant monitoring and control,
- Monitoring pump conditions and performing operation sequences,
- Flow monitoring,
- Residential Automated Meter Reading (AMR),
- Monitoring water supply assets,
- Implementing a SCADA control center,
- Design and implementation of a secure SCADA-Data communication system, including Remote Terminal Units, Programmable Logic Controllers and Intelligent Electronic Devices

Participants will obtain the basic knowledge to specify the SCADA requirements for their utility. All will be offered the opportunity to consult with the presenter via email with questions regarding SCADA solutions for their utility.

*Presented by Dan Ehrenreich, Motorola Israel Ltd.*

### **WS #3 Industrial Electrical Safety for Non-Electrical Workers:**

Seventy-nine percent of electrical-related workplace fatalities in the past decade have involved non-electrical workers. This workshop will help operators understand electrical hazards, assess their risk and control exposure to hazards. It will explain basic electrical theory, help to understand electrical codes, standards and hazards, and include effects of electricity on the human body. Potentially hazardous electrical tools, equipment and locations will be explained so one can identify dangerous situations. Safe work practices, electrical emergencies, rescue, and role of first aid will be discussed.

*Presented by Magna Electric Corporation.*

### **WS #4 Fundamentals of Calibration and Certification of On Line and Lab Instruments in Water & Wastewater:**

This workshop will give an overview of the theory of operation of water analysis instrumentation. It will give a review of calibration and certification practices and will explain best practices for calibration and certification. Finally, calibration procedures for on line and lab instruments will be explained.

*Presented by Andre Lemoine, ClearTech.*

### **WS #5 Couplings, Service Saddles, Tapping Sleeves (Wet & Dry) and Repair Clamps:**

This workshop will explain the different types of such devices; where, why and how they are used in a distribution and collection system. It will discuss their components, what they are made of; the types, sizes of pipes and the material the pipes are made of on which they are used; and how to install, pressure test and back-fill, once the devices are correctly installed. The slide presentation will be supported a variety of examples of these devices.

*Presented by Dave Brewer, Robar Industries Ltd.*

### **WS #6 Blowers, Air Compressors and Air Dryers:**

This workshop will explain the differences between blowers and air compressors and where each can be used to best advantage. It will explain types of blowers and compressors describing particular applications, limitations and benefits. Also explained will be preventative maintenance and troubleshooting for modern blowers, compressors and dryers. A comparison will be made between using Original Manufacturer Equipment (OME) vs. Aftermarket Equipment. The purpose of air drying, either via a desiccant or a refrigerant will be explained as each may pertain to a particular air use in a facility.

*Presented by Mike Gregorash, Comairco Equipment.*