November 1999

ANNUNCIATOR

SARNIA SECTION

Contents

Coming Events

- Dinner Meeting
  MONDAY, November 29th, 1999
  Sarnia Golf & Curling Club

Sign Up Now!

ANNOUNCEMENT

Vendors are invited to display their products at the Dinner Meetings. 2 tables are available.

Contact Program Committee Jim Dinkel or Andy Tucker. Cost $50 per table.

The Sarnia Section has a domain on the internet. Next time you're on the net give us a look at:
www.isasarnia.com

President's Address

Congratulations are in order to our section. Our section report received the gold award for small sections. This award also came with a cash bonus for the section. It was an honour for me to accept the award in Philadelphia at the Honours and Awards Banquet (tuxedo and all); the culmination of the ISA President's Fall Meeting. This proved to be added honour when we learned that the Edmonton Section had also won the gold award. This is quite an achievement for the Canadian districts.

This is one of the highest awards for a section and it reflects on its membership. This could not be achieved without your participation and dedication to excellence.

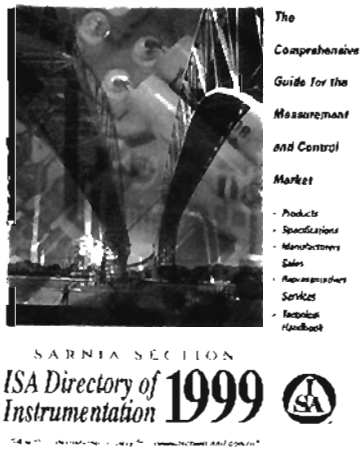
I look forward to your continued interest, dedication and participation and with a concerted effort we will achieve this honour again. Looking forward to presenting the section award at our next dinner meeting. Hoping to see you there.

Thank you,
Mike Murray

Still Available!

The 1999 Sarnia ISA Directory is still available.

Call (519) 332-2300 for details.



Upcoming Meetings

Executive Meetings...

- February 28, 2000
- April 24, 2000
- June 26, 2000
- August 28, 2000

Dinner Meetings...

- November 29, 1999
- January 31, 2000
- March 27, 2000
- May 29, 2000

Plan to Attend!

DINNER MEETING NOTICE

MONDAY
November 29, 1999

SARNIA GOLF & CURLING CLUB
500 Errol Road West, Sarnia • Phone: (519) 336-2201
Cocktails 6:00 p.m. Dinner 7:00 p.m.

All Guests are Welcome!

Guest Speaker...

STEVE HODGKINSON, Director of Business Development
TransAlta Energy Corporation

TOPIC: Steve will discuss the development of the Sarnia Regional Cogeneration Project

M ▸ E ▸ N ▸ U

Taco Salad, Assorted Mexican Platter
Lime Sherbert

** For special dietary needs contact Hilda White at the Sarnia Golf and Curling Club 48 hours prior to meeting date.*

NOTE: Kindly book before deadline indication.

Please phone in or E-Mail your reservation by Thursday, November 25th, 1999 to Sandi Cooke - Tidball Phone: (519) 481-3211 • E-Mail: cookets@novachem.com

MEMBERS $10 ▸ GUESTS $15

NOTE: ALL Members and guest are requested to reserve in advance. Please oblige... we need your support to plan your evening!

Perspective On... STEVE HODGKINSON, Guest Speaker

S. E. (Steve) Hodgkinson, Director, Business Development
TRANSALTA ENERGY CORPORATION

Steve has a Bachelor of Applied Science Degree in Civil Engineering from the University of Toronto. He joined TransAlta Utilities in Calgary, in 1981 as Senior Engineer, Right-of-Way Planning. In 1983 he was appointed Manager, Right-of-Way Planning and Regulatory Applications and in 1986, Manager, Property Administration. In these roles he was responsible for obtaining regulatory approvals for transmission lines and substations.

In 1990, Steve moved to the unregulated side of the business as Director, Business Development for TransAlta Energy Corporation. Since that time he has been involved in development, construction and operation of cogeneration projects in Windsor, Mississauga and Ottawa as well as numerous other development activities including cogeneration development and work with Ontario municipal utilities.

Steve is responsible for business development activities in Ontario and Eastern Canada. This role includes negotiation of detailed contractual arrangements, environmental and other regulatory approvals to further project development, and ongoing management of existing contractual arrangements.

Steve moved back to Ontario in 1995 to establish a business office and now lives in Oakville with his wife and two children.

HISTORY TEST... Flow Control

Questions:

1. The first form of flow measurement was used in the ancient world by the:
   A. Egyptians B. Romans C. Artesians

2. The steam pump was invented by:
   A. Herbert Henry Dow B. Benjamin Franklin C. Thomas Savery

3. Robert Boyle found that the volume occupied by the same sample of any gas at constant temperature is inversely proportional to the pressure. This statement is known as Boyle's Law. Boyle discovered this in:
   A. 1662 B. 1789 C. 1804

4. The invention of the turbine flowmeter can be credited to:
   A. Leonardo da Vinci B. Samuel Clegg C. Reinhard Woltman

5. The inventor of the Venturi flowmeter was:
   A. Clemens Herschel B. Giovanni Battista Venturi C. Walter Kent

6. The Reynolds' Number, a dimensionless quantity that characterizes laminar and turbulent flow by relating kinetic (or inertial) forces to viscous forces within a fluid, was introduced to the world in what year:
   A. 1789 B. 1883 C. 1914

7. Which flowmeter came first:
   A. Nutating Disk B. Vortex C. Paddlewheel

8. The flow of water through a magnetic field generates a voltage across the flow. This principle behind the magmeter was discovered by:
   A. Nikola Tesla B. Thomas Alve Edison C. Michael Faraday

9. Whose innovative mind may have foreseen the possibilities of vortex measurement:
   A. Leonardo da Vinci B. Blaise Pascal C. W.G. Bird

10. The first Coriolis flowmeter was demonstrated in:
    A. 1933 B. 1953 C. 1977

Answers:

1. A. The Egyptians are said to have used weirs for open channel flow measurement about 3000 years ago.

2. C. Thomas Savery developed the steam pump in Britain in 1698.

3. A. 1662

4. C. Reinhard Woltmans described a spoke-vane for measuring river flow in 1790. It was the forerunner to the turbine meter in which a rotating propeller is used to deduce volumetric flow.

5. A. Clemens Herschel, a nineteenth-century Harvard grad, invented the Venturi flowmeter and named it after Giovanni Battista Venturi. In 1894, Walter Kent got rights to the product, which did very well for his company Kent Meters now ABB.

6. B. Osborne Reynolds published his paper on the Reynolds' Number in 1883.

7. C. The paddlewheel in 1790. The nutating disk in 1850 and initial work was done on the vortex in 1950.

8. C. While Michael Faraday (1791-1867) was aware of the principle, it wasn't until 1930 that E.J. Williams managed to measure the voltage across a pipe as a scientific curiosity.

9. A. Some of Leonardo da Vinci's drawings suggest that he may have been familiar with vortices. A vortex flowmeter uses a bluff body to create vortices at a proportional frequency that can be used for flow rate measurement. W.G. Bird obtained a patent for such a device in 1959.

10. B. Although a model was demonstrated in 1953, it wasn't until the late 1970's that commercially available devices began making inroads.

Executive 1999-2000

Position	Incumbent	Phone	Fax	E-Mail
President	Mike Murray	383-1709	339-0481	mmurray@suncor.com
Vice-President	Randy Dennie	337-8252 ext. 5871	339-7723 (W) 542-0179 (H)	rjdenn@xcelco.on.ca
Past President / Section Delegate	Andy Tucker	383-3704	383-8285	andy.tucker@ontario.honeywell.com
Treasurer	Jeff Talbot	339-9330	1-888-259-1666	jtalbot@cbeast.com
Assistant Treasurer	Brian Patterson	337-7591	336-0997	bpatterson@peacock.ca
Executive Assistant	Mike Spearman	344-1339	344-3824	m.spearman@wika.ca
Newsletter Chairman	Bob Devine	332-2300	332-6640	bob.devine@frco.com
Directory Editor	Rob Thrift	339-2272	339-5729	rthrift@xcelco.on.ca
Web Master	Brian Smith	332-1212 ext.7920	339-7301	smithb@novachem.com
Program Chairman	Jim Dinkel	1-800-268-1151	1-800-563-3051	jamedin@frmail.frco.com
Program Assistant	Andy Tucker	383-3704	383-8285	andy.tucker@ontario.honeywell.com
Honours & Awards Chairman	Aldo DeSantis	344-4300	344-0042	aldo@controvalve.com
Membership Chairman	Glen Williamson	481-3202	481-3336	williaga@novachem.com
Membership Assistant	James Callery	337-2301	383-1736	jcallery@suncor.com
Student Section Liaison	Mike Grey	542-7751 ext.3308	542-6667	mike.grey@lambton.on.ca
Standards and Practices Chairman	Don Murch	431-1916	431-1127	murch@ebtech.net
Standards and Practices Assistant	Robert Thibault	464-6400		thibault@mooreproduct.com
Education Chairman	Kalpen Vachharajani	332-1717 ext.237	332-8715	vachhara@paton.org
ISA Show Committee Chairman	Wayne Wilkins	331-1063	337-8054	summa@idirect.com
Golf Tournament Chairman	Gary Coles	337-0777	337-4445	mvfsar@xcelco.on.ca

MEMBERSHIP FORM

INSTRUMENT SOCIETY OF AMERICA

This form may be used by any interested person wanting to join ISA or ISA International, including students. For assistance contact ISA Member & Customer Service at (919) 549-8411.

Please type or use block letters. Sign and date below, in Section 3.

1

Name ☐ Male ☐ Female Birthdate

Company Name Division/Works

Position/Title

☐ Check here if you are a full-time student and complete the following: School Year of Graduation

Mailing Address: ☐ Home ☐ Work NOTE: Student member applicant please list permanent home address

Street Address, P.O. Box Mail Stop

City

State / Province Postal Code Country

Telephone (include area code or country/city code) Fax Telex

Have you ever been a member of ISA? ☐ Yes ☐ No Previous years of membership

Assign me to the section or the section closest to my home address

Highest Educational Degree Earned: ☐ High School ☐ Associate ☐ Bachelor ☐ Master ☐ Doctorate

Are you a registered professional engineer? ☐ Yes ☐ No State / Country Registered

☐ From time to time we may make our mailing list available to companies whose products or services may interest you, please check this box. We will respect your wishes.

2 **NOTE: Sections 2, 3 and 5 must be completed for processing**

Check your primary job function

- ☐ A General or Corporate Management
- ☐ B Control Systems Engineering
- ☐ C Design Engineering
- ☐ D Production Engineering
- ☐ E Plant Engineering or Maintenance
- ☐ F Software Engineering
- ☐ G Plant Information Systems
- ☐ H Systems Integration
- ☐ I Measurement Testing Quality or Standards
- ☐ J Research and Development
- ☐ K Technical or Engineering Support
- ☐ L Operations
- ☐ M Purchasing or Procurement
- ☐ N Education or Training
- ☐ O Marketing or Sales
- ☐ P Other Describe

What is the primary end product manufactured or service performed at your company location?

☐ Check here if no manufacturing is done at this location

3

Signature

Date

5 **Dues Payment Information**

Please select the level of membership for which applying

- ☐ Regular Member $65 US (Tax Deductible) $
- ☐ Student Member $9 US (Limited Benefits) $
- ☐ Division Membership $5 US each $
- ☐ Industrial Computing Society Membership (reg. $55) $30 must be an ISA Member $

TOTAL AMOUNT DUE $

Annual ISA dues include a subscription to INTECH, for which a non-deductible allocation of $[illegible] is made for regular members and $[illegible] for student members.

NOTE: The following are acceptable for remitting dues payment. Please indicate the method used. Make cheques payable to Instrument Society of America in US Currency only. If paying with international funds, see special note below.

☐ Check ☐ Money Order
☐ American Express ☐ Eurocard ☐ MasterCard ☐ Visa

Account# Expiry Date

Special Note Regarding Transfer of International Funds

Credit Card Payment is preferred, checks with proper MICR bank encoding must be drawn on your bank's correspondent NY or other US bank. Amount payable to ISA must include any bank or other processing charges.

☐ Wire Transfer - Add $5.00 US for processing. Send to ISA Account #1126294, Central Carolina Bank, ABA 053100465. Transfer must show applicant's name and address.

☐ UNESCO Coupons ☐ Money Order - Add $5.00 US for processing

Mail completed form and payment to: Instrument Society of America
Member & Customer Services
P.O. Box 3561
Durham, North Carolina 27702
USA

If paying by credit card, fax to (919) 549-8288

DIVISION ENROLMENT - Also enroll me at $5.00 each in the Divisions checked below. To join Divisions you must also enrol as a regular or student member.

4

Automation & Technology Divisions

- ☐ (A) [illegible]*
- ☐ (C) Robotics & Expert Systems
- ☐ (D) Computer Technology*
- ☐ (L) Open Systems Interconnect
- ☐ (P) Process Measurement & Control*
- ☐ (J) Test Measurement
- ☐ (M) Automatic Control Systems*
- ☐ (K) Telemetry & Communications
- ☐ (P) Electro-optics
- ☐ (W) Management*

Industries & Sciences Divisions

- ☐ (B) Aerospace Industries*
- ☐ (F) Mining & Metals
- ☐ (G) Chemical and Petroleum Industries*
- ☐ (I) Construction & Design*
- ☐ (U) Pulp & Paper Industry*
- ☐ (Q) Power Industry*
- ☐ (R) Food & Pharmaceutical Industries*
- ☐ (T) Textile Industry
- ☐ (V) Automotive & Vehicular
- ☐ (X) Water & Wastewater Industries
- ☐ (Y) Glass & Ceramics Industries
- ☐ (Z) Marketing & Sales*

*Students are entitled to one free membership each in the Automation & Technology and Industries & Sciences Divisions. Please choose and mark from the asterisked selections.