

The Ontario **ELECTRICAL** **CONTRACTOR**

ECAO
ELECTRICAL CONTRACTORS
ASSOCIATION OF ONTARIO

Volume 46 • Number 4 • Fall 2008

Generating Wind Power at Ripley

**ECAO's Annual General Meeting
and Evening at the Races**

Ontario Technological Skills Competition 2008

Study at your own pace... In your own place and earn your certificate as a...

Programmable Logic Controllers Technician



Interactive CD-ROM Based Learning Program

Develop your technical skills and knowledge to install, maintain, troubleshoot and repair industrial PLC's

Our Program Features:

- Industry recognition
- Pay-as-you-go registration options
- Free 1-800 number tutorial and technical help
- Full accreditation
- Hands-on lab experience through software simulation based on the Allen-Bradley PLC format
- Continuous enrollment. Start today!

Contact one of our Program Advisors today to learn how our program can work for you!



**Call now! 416-415-4726 or
Toll-free 1-888-553-5333**

www.plctechnician.com

We Bring The Classroom To You.



MAXIAMP

CABLE BUS FEEDER SYSTEM

The Most Technically Advanced Electrical Power Delivery System !



- FULL POWER RANGE
- REDUCED POWER LOSSES
- LOWEST COST SYSTEM
- SUPPRESSES EMF'S
- FREE AIR AMPACITY RATING

- SIMPLIFIED INSTALLATION
- EXPANDABILITY
- ENHANCED ENCLOSURE
- ABOVE AND BELOW
GROUND INSTALLATION



United Wire and Cable offers a complete turnkey solution from site engineering assessment to complete installation resulting in the most feasible and reliable system at the lowest cost.

United Wire & Cable

1 West Pearce Street, Richmond Hill, Ontario,
Canada L4B 3K3

Tel.: (905) 771-0099 or 1-800-265-8697
Toll Free Fax: 1-800-461-4689 or email to:
sales@unitedwc.com www.unitedwc.com



LIZCO SALES INC.

ELECTRICAL POWER EQUIPMENT SPECIALISTS

Tomorrow's Solutions Today
With CANADA's largest on-site
inventory

- **New/New Surplus/Rebuilt:**
 - Oilfilled/Dry Transformers**
- **New Oilfilled "TLO" Substations**
- **New S&C Fuses/Loadbreaks**
- **High and Low Voltage**
 - **Vacuum/Gas Breakers**
 - **Air Circuit Breakers**
 - **Molded Case Breakers**
 - **Busduct-Busplugs**
 - **QMQB/Fusible Switches**
 - **HV Towers**
 - **Combination Starters**
- **Emergency Service**
- **Replacement Systems**
- **Design Build Custom Systems**



1-877-842-9021
www.lizcosales.com

The Ontario **ELECTRICAL CONTRACTOR**

Volume 46 • Number 4 • Fall 2008

The President's Remarks	6
Construction of a Wind Power Project Near Ripley, Ont.	8
ECAO's Annual General Meeting and Evening at the Races	16
Ontario Technological Skills Competition – 2008	22
The Nine Personality Profiles of Affluent Investors	29
Return to Work and Re-employment	34
Update on Fused Leads	38
CELC Develops Financing Program for ECAO Members	42
Earn More Profit\$ While Having More Time Off	44
Industry Briefs	48
New Products and Services	50
Toobox Talks	51
Index to Advertisers	53



On The Cover: K-Line Wind Farm Construction Project near Ripley, Ontario (see story page 8).

The Ontario Electrical Contractor is published quarterly for:

ECAO
ELECTRICAL CONTRACTORS
ASSOCIATION OF ONTARIO

170 Attwell Drive, Suite 460, Toronto,
Ontario M9W 5Z5
Tel: 416-675-3226
Fax: 416-675-7736
1-800-387-ECAO (3226)
e-mail: ecao@ecao.org
Web: www.ecao.org

ECAO EXECUTIVE COMMITTEE

President: Fred Black, Stevens & Black
Electrical Contractors, Markham

Past-President: Brad Vollmer,
Vollmer & Associates, Windsor

First Vice-President: John Raeppe,
John Raeppe Electric Ltd., Ayr

Second Vice-President: Jim Kellett, K-Line
Maintenance and Construction, Stouffville

Treasurer: Bill McKee,
Carleton Electric Ltd., Nepean

Director: Peter Bryant,
Esten Electric Ltd., Sudbury

Executive Vice-President: Eryl Roberts

The Ontario Electrical Contractor is the official publication of the Electrical Contractors Association of Ontario. Its purpose is to provide information and editorial comment on issues that are relevant to the electrical contracting industry.

Publisher

Robert Thompson

Associate Editor

Angela Altass

Editor

Dan Kenning

Sales Manager

Sharon Komoski

Sales Executives

Nolan Ackman, Ilan Moyle,
Steve Beauchamp, Hayden Dookheran

Production Team Leader

Adrienne N. Wilson

Graphic Design Specialist

Jorge Gérardin

Published by:

MediaEDGE
PUBLISHING INC.

5255 Yonge Street, Suite 1000
Toronto, ON M2N 6P4
Toll Free: (866) 216-0860 ext.229
robertt@mediaedge.ca

1 Wesley Ave., Suite 301
Winnipeg, MB R3C 4C6
Toll Free: (866) 201-3096
Fax: (204) 480-4420

www.mediaedgepublishing.com

President

Kevin Brown

Senior Vice-President

Robert Thompson

Branch Manager

Nancie Privé

All rights reserved. The contents of this publication may not be reproduced by any means, in whole or in part, without the prior written consent of the association.

PUBLICATION MAIL AGREEMENT #40063602

Return Undeliverable Items to: The Ontario Electrical Contractor, 170 Attwell Drive, Suite 460, Toronto, Ontario M9W 5Z5



The President's Remarks

ECAO Supports Armstrong Report

Fred Black

On May 22, 2008 the long-awaited Armstrong Report on compulsory certification was released. The purpose of the report was to explore the impact of expanding compulsory certification to those skilled trades that are currently voluntary. (For a copy of the report visit www.edu.gov.on.ca/eng/ccr/index.html.)

Armstrong went further than the original mandate anticipated and recommended revamping of the skilled trades training system. The primary recommendation is to establish an all-trades governance institution — a College of Trades — outside of the government to manage all aspects of the trades training process. Armstrong recommended four functions for the College as follows:

- 1. To establish a trades advisory panel to consider applications for compulsory status from existing voluntary trades and presumably to resolve trade overlaps;
- 2. To establish an “enhanced enforcement unit” in order to properly enforce the trades legislation and regulations;
- 3. To establish a panel of industry and labour market experts to handle supply and demand issues such as ratios; and
- 4. To assume the role of accrediting apprentices and journeypersons and other college-like functions.

In addition to the College of Trades, Armstrong made a number of other recommendations including a review of existing trade exemptions, a hot issue which has been on the ECAO agenda for years.

While there are concerns that implementation of Armstrong's recommendations could lead to more bureaucracy, I think he has addressed the key apprenticeship challenges for the electrical industry. A mechanism for compulsory certification of the line trade; enforcement of the trade regulations; reconsideration of industrial exemptions; and ratios are all matters I have addressed here in the last year as being critical to the future of the electrical trades and business. Furthermore, the creation of the College, if done properly, should be an opportunity for more industry participation and influence in the delivery of trades training.

This report has caused many a long debate but was necessary to put key issues into perspective and onto the agenda. The ECAO Board of Directors has had the opportunity to review the report, has endorsed it and looks forward to its early implementation. Hopefully when you read this in October, the government will be in full swing and Minister Milloy will have formally adopted Armstrong's recommendations.

In Memoriam – John A. (Jack) Moncur, P. Eng – 1925-2008



Jack was a veteran of WWII serving with the Royal Canadian Navy — his ship became part of the British Pacific Fleet off the coast of Japan. Jack was a graduate of the University of Toronto, Electrical Engineering (Class of 1949) and former co-owner of Moncur Electric Motors Ltd. (Monelco). He was a member of Professional Engineers Ontario and a member and past-president of the Windsor Electrical Contractors Association,

the Electrical Contractors Association of Ontario and the Canadian Electrical Contractors Association. Jack was the fourth recipient of ECAO's Douglas J. B. Wright Award in 1996, in recognition of his dedication and commitment to the electrical contracting industry.

Jack was also a member and past-president of the Windsor Curling Club, a member of Beach Grove Golf and Country Club, The Windsor Club, the Windsor Jaycees and the Windsor Downtown Lions Club. Jack was very involved in the

health care field, serving on many boards including the Children's Aid Society, VON, Regional Children's Centre, Malden Park, Maryvale and the Windsor Western Hospital.

In her online tribute to Jack, Connie Martin, Executive Director of Maryvale in Windsor, a treatment centre for adolescents, states, “From first meeting it was clear that Jack was an unusually competent individual and a real life ‘gentleman.’ He had a wonderful attitude and was a sincerely generous man.”

IBERVILLE®

LHTQ™ family delivers again.

Unprecedented capacity, impeccable breeding

**Presenting the IBERVILLE® BC1018-LHTQ™ device box -
our largest box ever.**

The biggest, single-gang steel device box on the market,
the IBERVILLE® BC1018-LHTQ™ delivers an unprecedented capacity of 18 cubic inches,
giving you the extra finger and conductor space you need for heavier duty device installations
such as fan and lighting controls, GFCIs and thermostats.

What's more the IBERVILLE BC1018-LHTQ device box incorporates all of the patented,
time-saving features you've come to expect from the IBERVILLE LHTQ family.




- Positioning guides for drywall and outside wall applications
 - Retractable positioning tabs for double drywall
 - Internally embossed mounting slots
- Flat box sides for maximum stability and holding prongs
 - CSA-approved one-screw mounting

IBERVILLE LHTQ – innovative design and quality manufacturing are a **family affair**.



Thomas & Betts



Construction of a Wind Power Project Near Ripley, Ont.

By Kevin Gaul,
Manager of Projects,
K-Line Maintenance
and Construction

In October 2006, K-Line Maintenance and Construction endeavoured to construct the balance of plant required to collect the generated power of 38 – E82, Enercon Wind Generators and transfer this power to the provincial 230 kV grid, 27 km to the north. Naturally, beginning construction this late in the fall, means inclement weather, and as the locals would say, “Worst year for rain for 30 years!”

In the month of October, 11 inches of rain fell upon us, making it very difficult to install the 30 km of underground cable for the 34.5 kV collection system. During a period when the weather broke, another obstacle was uncovered, an unexploded World War II ordinance. The construction site was shut down while a company named Notra scanned the entire area for any remaining ordinances. After a week

of scanning there were 20 projectiles discovered and disposed of offsite. It was later discovered that the area where the bombs were found was a target range for Canadian bombing crews before they went to Europe for WWII.

As mentioned, the 34.5 kV collection system has 30 km of underground cable along with 9 km of overhead. This created the three feeders required to collect the 34.5 kV to a substation known as Ripley South, which is centralized in the wind farm area. At Ripley South the voltage was stepped up to 69 kV and then fed north 27 km along a 69 kV transmission line to a second substation known as Majestic. Majestic CTS has two 230 kV to 69 kV transformers to transmit the generated power to two separate 230 kV circuits. Neither substation nor the 69 kV transmission line could start construction until the Leave



WHAT SHOULD HAVE BEEN A ROUTINE JOB **TURNED YOUR WORLD UPSIDE DOWN!**



Workers, supervisors and facility - business owners should follow safety requirements defined by the Ontario Electrical Safety Code and the Occupational Health & Safety Act. Written safety procedures are required where anyone is working on electrical equipment.

Visit www.esasafe.com for electrical safety information.

**DON'T WORK
LIVE**



**Electrical
Safety
Authority**

YOU CAN DO IT - YOU SHOULD DO IT - DON'T WORK LIVE!

to Construct Permit was granted by the Ontario Energy Board. This meant that construction was started in January 2007 and as the locals would say, "Worst winter in 30 years!" with several storm days and road closures to impede our progress. Energization was October 2007 and commissioning of the turbines began. Generated power reached the grid in November 2007.

The Independent Electricity System Operator (IESO) controls the provincial grid and specifies the requirements that Market Participants must achieve prior to connection. One of these requirements is for dynamic VAR compensation (DVAR) to inject capacitance or inductance instantaneously as the system requires. There are Wind Turbines that meet this requirement without installing additional equip-



ment for this compensation, but the Enercon WTG does not have this capability. Therefore a DVAR unit was required that consisted of four units of DVAR equalling 14 MVAR,

an inductor bank at 11 MVAR and two sets of static capacitor banks (16 MVAR each) on the 69 kV system at Majestic. Communication between the different elements was achieved

Port Perry Salvage Inc.

Buyers of Ferrous & Non-Ferrous Scrap Metal,
Cars, Trucks & Heavy Equipment
• Plant Dismantling & Building Demolition •

We pay Top Cash for Copper
All Electrical Scrap
Heavy Equipment,
Plant Clean Outs
Transformers
+ More

JOHN STEPHENS, JR.

132 Reach Industrial Park
Port Perry, Ontario
L9L 1B2
portperrysalvage@bellnet.ca

Yard 905-985-6121
Fax 905-985-6122
Toll Free 1-877-587-4557
Cell 289-314-3366

ENERGY EFFICIENCY CONTRACTORS' NETWORK

Energy Efficiency is Good Business

Are you a contractor serving the small to medium enterprise sector looking for a competitive "green" edge? The **Energy Efficiency Contractors' Network** in partnership with the Ontario Power Authority (OPA) has created a new one-day training workshop to teach contractors how to capitalize on the growing concern for the environment.

OPA Every Kilowatt Counts
Ontario Power Authority

**Don't miss out on this
exclusive member training
opportunity - only \$299!**

Sept 11 - Ottawa
Oct 28 - Hamilton
Oct 30 - Barrie
Nov 18 - Kitchener
Nov 20 - Kingston
Nov 25 - Toronto

To register or for more information on the EECN, visit www.eecn.ca

Founding Members of the Energy Efficiency Contractors' Network:



ONTARIO ELECTRICAL LEAGUE

International Brotherhood of Electrical Workers Construction Council of Ontario

**John Pender, Executive Secretary Treasurer - John Grimshaw, President - Sol Furer, Vice-President
Jack Dowding, Executive Chairman Power Council - Bruce McNamara, Power Council President
John Gillett, Power Council Vice-President**

***Representing 13 IBEW Local Unions across the Province of Ontario,
serving over 14,000 Electricians, Communication Workers and Linemen.***

105 HAMILTON

**John Grimshaw, B.M.
Vic Prohaska, Pres.
tele: 905-387-1721**

115 KINGSTON

**Bill Pearce, B.M.
Guy Desaulniers, Pres.
tele: 613-547-4115**

120 LONDON

**John Gibson, B.M.
Steve Carty, Pres.
tele: 519-451-0655**

303 ST. CATHERINES

**Peter Wall, B.M.
Mark Cherney, Pres.
tele: 905-227-7303**

353 TORONTO

**Joe Fashion, B.M.
Barry Stevens, Pres.
George Smith, Rec. Sec.
tele: 416-510-3530**

402 THUNDER BAY

**Glen Drewes, B.M.
Kirby Kapush, Pres.
tele: 807-623-5759**

530 SARNIA

**Mick Cataford, B.M.
Raphael Camden, Pres.
tele: 519-344-4154**

586 OTTAWA

**James Barry, B.M.
Douglas Parsons, Pres.
tele: 613-741-5664**

773 WINDSOR

**Sol Furer, B.M.
Ed McDowell, Pres.
tele: 519-948-2221**

804 KITCHENER

**George Couch, B.M.
Corina Hicks, Pres.
tele: 519-742-8319**

894 OSHAWA

**John Gillett, B.M.
Randy O'Neill, Pres.
tele: 905-623-7931**

1687 SUDBURY

**Bruce McNamara, B.M.
Timothy Butler, Pres.
tele: 705-566-1687**

1739 BARRIE

**Tom Leduc, B.M.
Blaine Neville, Pres.
tele: 705-734-9590**

INTERNATIONAL OFFICE

**Phil Flemming, IVP
tele: 905-564-5441**

IBEW CONSTRUCTION COUNCIL OF ONTARIO

**61 International Blvd
Suite 209, Etobicoke ON
tele: 416-674-6940**



through an OPGW cable that was installed on the 69 kV line assisting in lightning protection of the line.


The master control of the DVAR monitors the generator output and adjusts set points to accommodate the system requirements. It then sends a signal to the DVAR units to create a capacitive or inductive input to steady the system. Voltage regulation is achieved through an automatic tap changer located on the Ripley South transformer. During periods of high generation, the DVAR can be producing capacitive input above 11 MVAR. When this occurs one of the capacitor banks at Majestic will close in with 16 MVAR. If only 12 MVAR of capacitive is required then the DVAR units at Ripley South will create an inductive load of 4 MVAR to compensate for the surplus of capacitance being injected by the capacitor bank. As the



generation ramps down the capacitive requirements will also be reduced, thus the 16 MVAR capacitor bank's circuit switcher will open, removing it from the system. The DVAR units will instantaneously switch from an

inductive mode to a capacitive creating the amount the system requires.


The Enercon E-82 WTGs are a direct drive generator standing 78 metres to the centre of the hub with an 82-metres




REW

Robertson Electric Wholesale


290 Vaughan Valley Blvd. Vaughan, Ontario L4H 3C3
 Phone: (905) 856-9311 Fax: (905) 856-9317 www.robertson-electric.com



PPE IN STOCK





Fused Test Leads




Cementex Safety Solutions

Double insulated 1000V safety tools and arc flash clothing






Dielectric Foot Wear



Glove Kits Consist of: Protectors, Gloves and Carry Bag



Arc Shield

Saving money never looked so good.

GE LED Cove Lighting System
50,000 hours – 5.7 years of 24/7 operation
All without changing a lamp.

The new GE LED Cove Lighting System helps hotels, resorts, restaurants, retail users and casinos to create a consistently beautiful look while lowering energy and maintenance costs, simplifying on-site installation and curbing environmental impact.

- **Improved energy usage** – up to 7X more efficient than xenon
- **Reduced maintenance and replacement costs** – rated to perform for 50,000 hours without changing a lamp
- **Installs quickly and accurately** – easy to use mounting tracks and fewer system components reduce labour and material costs
- **Consistent brightness and uniformity** – delivers bright, even white light that lasts
- **Environmentally conscious** – energy efficient, contains no lead, mercury or glass, RoHS compliant

For complete details about the new
GE LED Cove Lighting System,
call 1-877-259-0941, ext. 2912,
or e-mail us at marketingcdn@ge.com.



a product of
ecomagination™





span tip to tip on the blades. The rating of each generator is 2 MW producing 400 volts DC which is then converted to 400 volts AC at the bottom of the turbine and stepped up to 34.5 kV with a silicone filled transformer located inside the base. The 38 wind generators give the Wind Power Project the connected capacity of 76 MWs. The bases for the WTGs are 20 metres

in diameter with a 16-ton mounting collar, 45 ton of rebar steel and 400 cubic metres of concrete in each. Co-ordination of our activities with the Enercon personnel was extremely important to achieve our goals.

K-line Maintenance and Construction achieved the customer's goal to be in commercial operation by the

end of 2007. The construction of the two high voltage substations, 27 km of 69 kV transmission and 39 km of overhead and underground 34.5 kV collection system were completed in 12 months. This was not the entire scope, since the customer wanted to avoid conflict with different constructors on site. K-Line was requested to install all of the fibre optic system and roads for the construction of the WTG's bases and tower erection. There were 144 company orientations completed on site to insure that all employees of our subcontractors understood K-Line's objective to Zero incidents as per their Managed Safety Policy.

Implementations of new technologies such as the DVAR are challenging, especially when integrating it with German standards and software. Overall the project goals were reached and K-Line can consider this a great achievement.

SCAN IDENTIFY PREDICT RESOLVE





InfraRed Imaging Solutions Inc. (IRIS) is a world class PdM (Infrared, Vibration Analysis, Ultrasound, and Oil Analysis) maintenance solutions company providing professional infrared scans to residential, commercial, and healthcare facilities in Canada, the United States and abroad.



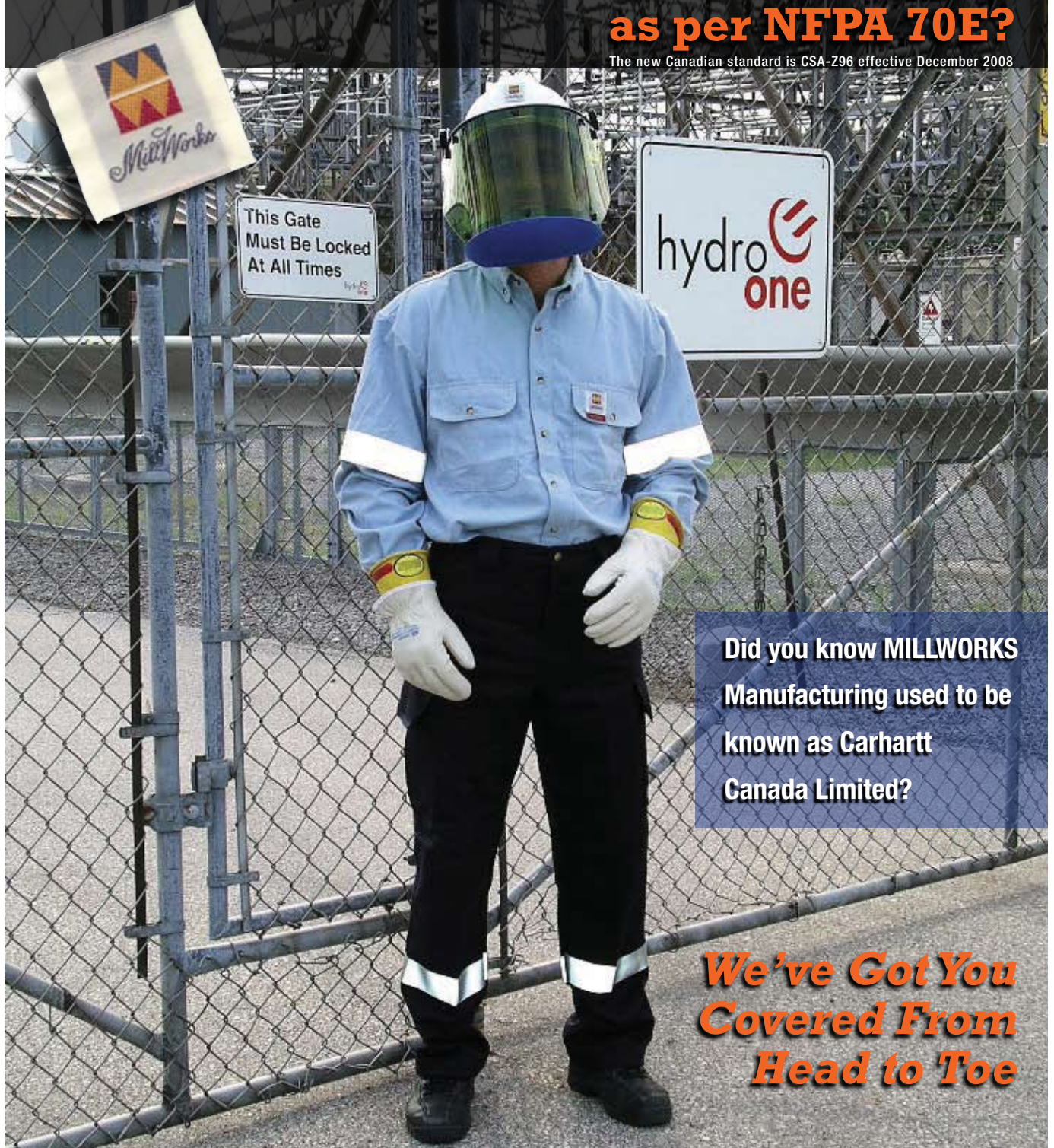
IRIS' inspectors are experienced and certified in inspecting electrical equipment, building envelope, roof integrity, ramp heating systems, and water damage. **IRIS** also provides core cut roof sampling and compressed air surveys.

With vibration analysis, **IRIS** monitors the condition of motors in boiler rooms, chillers, fire pumps, domestic chilled water, and elevator machine rooms for optimum machine reliability and uptime.

(416) 529-4733 1 (866) 955-IRIS
www.iris maintenancesolutions.com

ARE YOU BEING PROTECTED as per NFPA 70E?

The new Canadian standard is CSA-Z96 effective December 2008



Did you know **MILLWORKS**
Manufacturing used to be
known as Carhartt
Canada Limited?

***We've Got You
Covered From
Head to Toe***

TOLL FREE 1.877.285.6455

www.millworksmfg.com

CARHARTT is a registered trademark of Carhartt Inc.



Fred Black addresses the membership at the AGM



Fred Black (second right) presents the safety awards to winners (from left) John Salvatore, Jeff Kapush, Jack Gibson, Gerry Snyder, Jim Kellett and Brad Vollmer



Fred Black thanks retiring director Wayne Crockett



Brad Walker presents the DJB Wright award to Ed Norman

ECAO's Annual General Meeting & Evening at the Races

ECAO held its Annual General Meeting on June 18 at the Renaissance Toronto Airport Hotel in Toronto, Ontario. Prior to the formal business portion of the meeting, president Fred Black presented ECAO's safety awards. Congratulations to the following member companies on their achievements in safety excellence:

- **Gemor Electric** (Category: Rate Group 704 — up to 50,000 Total Work Hours)
- **Vollmer & Associates** (Category: Rate Group 704 — 50,001 to 200,000 Total Work Hours)
- **Mid South Contractors LTD.** (Category: Rate Group 704 — 200,001 to 500,000 Total Work Hours)
- **Aecon Industrial** (Category: Rate Group 704 — over 500,000 Total Work Hours)
- **Advantage Electric Thunder Bay Ltd.** (Category: Rate Group 830 — up to 50,000 Total Work Hours)
- **K-Line Maintenance & Construction Ltd.** (Category: Rate Group 830 — over 50,000 Total Work Hours)



SEVEN REASONS (AND THEN SOME) **WHY** PEOPLE PREFER NEW PROTERA™ TO FR COTTON BLENDS.

DUPONT™ PROTERA™ Because – scientifically speaking – it's less [1] "prickly," [2] "heavy," [3] "stretchy," [4] "stiff," [5] "clingy," [6] "clammy" and [7] "scratchy" than FR cotton blends. That's what participants in an independently

administered double-blind comfort study said when asked to compare Protera™ with a

competitor's FR cotton blend garment. It offers superior arc protection that meets NFPA 70E category 2 standards. The protection is inherent and won't wash or wear out. And the patented Protera™ fabric is twice as strong as FR cotton blends,

giving it a longer wear life. All of which makes it a better value. To learn more about the latest innovation from the makers of NOMEX® visit why.dupont.com/protera Because life is worth protecting.

BECAUSE
IT STANDS UP
TO TIME AS WELL AS
IT DOES
TO AN ARC EVENT

BECAUSE
HIGH-ENERGY
SITUATIONS
CALL FOR
HIGH-PERFORMANCE
GEAR



The miracles of science™

For more information please call 1 800-387-2122
or visit www.personalprotection.dupont.ca



Eryl Roberts (left) and Bob Stelzer present a gift of thanks to Gary Beer (centre)



Bob Stelzer brings the membership up to date on ESA activities

Following the safety awards, the 2008 Douglas J. B. Wright Award for contractor contribution and dedication for the betterment of the electrical industry was presented by Brad Walker, president of ECA Quinte-St. Lawrence. This year's recipient, Ed Norman, is president of Martin Electric (1986) Limited in Kingston, Ontario; director, treasurer and past president of ECA Quinte-St. Lawrence; co-chair of the Local Joint Conference Board; and, a current representative on the Electrical Trade Bargaining Agency and past director of ECAO. Outside of the electrical industry, Ed has served as a director and president of the Kingston Construction Association and president of the local minor hockey association.

In his presentation, Brad Walker stated that "Ed worked under

the leadership and guidance of Doug Wright during his term with Ontario Electrical Construction Co. Ltd. early in his career." Ed Martin, in his thanks, remarked that "Doug Wright was the guy I most wanted to be like and it is an honour to receive this award in his name." Congratulations, Ed!

Following the awards presentations, president Fred Black paid tribute to retiring director Wayne Crockett thanking him for his years of service on the Board before calling the meeting to order. The nominating committee report was accepted as presented, installing the 2008-2009 directors. The new Board held its first meeting following the AGM. The 2008-2009 directors are:

- Ove Bakmand
- Rick Ball
- Gary Beer

- Fred Black
- Ed Braithwaite
- Peter Bryant
- Gary Carr
- Doug Dinniwell
- George Docherty
- Gary Ganim
- Al Gordon
- Jim Kellett
- Chris Krueger
- Dan Lancia
- John Salmon
- Bill McKee
- John Raeppele
- John Salvatore
- Joe Spadafora
- Brad Vollmer
- Brad Walker

President Fred Black gave an update on the progress of ECAO over the previous year and thanked the ECAO directors and committee members, ETBA representatives and ECAO staff for their continuing support.



Royal Rigid Conduit Pipe



Royal Ultra Duct Pipe



Royal Flex ENT Pipe

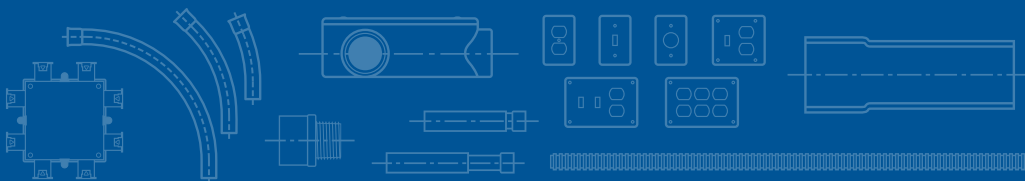
ELECTRICAL PRODUCTS YOU CAN TRUST.

For 35 years, Royal Pipe Systems™ prides itself on our commitment to quality, innovation and meeting the highest service requirements of our customers. Our sales, customer service and technical support teams are experienced, knowledgeable, dedicated, friendly and ready to help you with your needs.

3 Main Electrical Product Groups in Ontario:

- Royal RPVC Conduit & Fittings
- Royal DBII/EBI Duct & Fittings
- Royal Flex ENT & Fittings

For more information on our electrical products or on Royal Pipe Systems™ please call your local distributor or check our web site at www.royalpipe.com.



Royal Pipe Systems
Great Ideas Taking Shape.



The ladies take the jewelry for a test drive at the party hosted by Belle Boutique (www.belleboutique.ca)



Ed and Karen Braithwaite study the racing form



The blanket presentation at Woodbine Racetrack

Following the formal agenda, Bob Stelzer, CEO of the Electrical Safety Authority, informed the membership of the industry's safety record and the impact of programs such as 347 volt lighting, code changes and fused leads. Mr. Stelzer and Eryl Roberts, executive vice-president, ECAO then jointly thanked ECAO member Gary Beer for his dedication and commitment to electrical safety in his participation on several ESA committees.

At the Board of Directors Meeting following the AGM, the following officers were duly elected:

- Brad Vollmer, Past-President
- Fred Black, President
- John Raepple, 1st Vice-President
- Jim Kellett, 2nd Vice-President
- Bill McKee, Secretary-Treasurer
- Eryl Roberts, Executive Vice-President.

During the Annual General Meeting, the spouses enjoyed a private jewelry party (with champagne and strawberries) hosted by Joanna Sipos of Belle Boutique in Toronto.

Afterwards the delegates and spouses made their way by bus to the Woodbine Racetrack for an evening of dining and trackside entertainment. The highlight of the evening came in the sixth race, sponsored by Skipwith & Associates, where six lucky attendees were given the opportunity to present a gift blanket to the winning horse.

WESCO delivers

DATACOMM SOLUTIONS



Your Complete Business Partner

Put the WESCO advantage on your team. Gain the edge you need to increase your success rate and profitability. Count on our outstanding technical support and local service from 52 branches across Canada.

Source leading brands like Belden, Panduit, Tyco and Fluke. Succeed with creative supply chain solutions that make it all run smoothly.

Connect with Canada's most complete Datacomm distribution partner.



Learn more?

Visit www.wesco.ca/services.htm or call 1-866-WESCOCA (937-2622)





2008 Second and Post Secondary Competitors

ONTARIO TECHNOLOGICAL SKILLS COMPETITION – 2008

From humble beginnings participating at Skills with a small booth over 10 years ago, today the International Brotherhood of Electrical Workers (IBEW) and the Electrical Contractors Association of Ontario (ECAO) (under the auspices of the Joint Electrical Promotion Plan) proudly sponsor the Electrical Wiring Competitions, Network Cabling Specialist Demonstration, Elementary Workshop and Careers Booth at the Ontario Technological Skills Competition (OTSC). This year the 19th Annual event was held May 5-7, 2008 in Waterloo, Ontario.



Bob Nelson (forefront) and Joe Gajdacs Judge Competitors Projects

**NON-METALLIC,
THREADED OPENINGS**

FIXTURE BOXES

for FLAT SURFACES, ALL SIDING TYPES

NEW!

8161TR
for Flat Surfaces



**Add Another
Fixture or Outlet
the Easy Way!**



Patent
pending

Install a fixture now, anywhere you want it – add another fixture or outlet later. It's easy with Arlington's new, non-metallic fixture box.

Saves Time. Convenient! This box installs in either the horizontal or vertical orientation, and gives you the option of installing your fixture where you need it. You can also install additional security or flood lights at a later time through the threaded openings.

Convenient and versatile, 8161TR is designed for flat surfaces, but adapter plates allow this box to fit all siding types.



For Siding...
8131TR Rigid siding
8141TR 1/2 Lap
8151TR 5/8 Lap
8171TR Dutch Lap



Adapter plate for
each siding type
converts the flat
style for use on
any siding type

8171TR
for Dutch Lap
(below)

© 2008 Arlington Industries, Inc.

**ADJUSTABLE, STEEL
IN/OUT™ BOX**

OUTLET BOXES

for NEW CONSTRUCTION

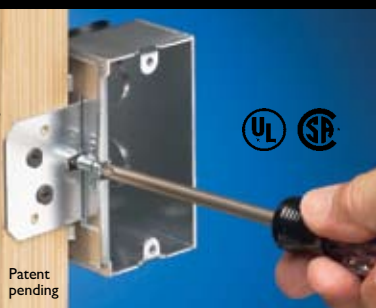
NEW!

FAS423C
w/ installed
connector



Easy mounting to STEEL or WOOD studs

FAS423



Patent
pending



Arlington's new steel outlet box mounts on wood or steel studs for a super secure installation.

Adjustable The new FAS423 box fits a variety of wall thicknesses. Fast and easy to do, it adjusts up to 1" even after the final wall finish is in place. Perfect for areas where the final thickness of the wall is not known; for instance a wall with double drywall.

Compliance with NEC

Use its adjustability feature to comply with the 2008 NEC requirements of Article 314.20. Set back boxes will never be a problem again!

- Available with or without an installed 4010AST Snap²It[®] connector
- Single gang, 20.5 cu. in. box
- UL/CSA Listed



FAS423C
with
installed
connector

FAS423

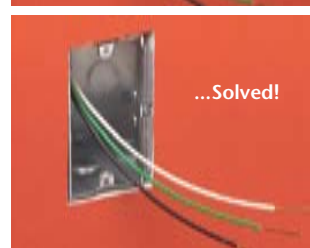
Box
depth
adjusts
up to 1"



Set back
problems...



...Solved!



© 2008 Arlington Industries, Inc.



Arlington

800/233-4717 • www.arlnew.com



Gord Thomson Demonstrating Communications Activity

“The IBEW and the ECAO work hard all year preparing for these exciting events,” says John Pender, Executive Secretary-Treasurer, IBEW Construction Council of Ontario. “We provide the financial support

and staff expertise, gather together respected volunteers and solicit donations from industry suppliers. Our culminating efforts and dedication resulted in winning first prize for best interactive careers booth!”



Students Visit ECAO/IBEW Career Booth

OTSC 2008 hosted over 1,500 competitors, 60 skilled trades and technologies contests and over 80 career booths. Visitors surpassed 30,000. “This event allows the ECAO and IBEW to promote the

IMPULSE TECHNOLOGIES

Toronto
800.667.5475




Calgary
877.785.3579

The Number 1 Source For All Your Wire And Cable Needs.
For Quality Products And Service Trust Your IMPULSE!



Traffic, Alarm, Electronic, Communication, Industrial/Residential








www.impulsetechnologies.com

TRAVELERS

Our Bond Is Your Guarantee

Travelers Guarantee Company of Canada is the market leader of surety products in Canada. We are committed to customer service excellence and forging strong business relationships. You can be confident you are dealing with the experience and expertise required to get the job done.

Travelers Guarantee Company of Canada
Contact your surety broker for information
Surety . Warranty . Specialty Insurance
www.travelersguarantee.com



Post Secondary Medalists (from left) Frank Natale, Daniel Lee and Ryan Longe



Post Secondary Competitor Completing Project

electrical trade as an exciting and dynamic career choice — not only to students, but to government, educators and the general public,” stated Eryl Roberts, Executive Vice-President, ECAO.

Overall, it was a challenging and busy day for the electrical wiring competitors. With a start time of



INFRARED THERMOGRAPHIC SERVICE

We will sub-contract under your company



Over 10 years of electrical experience




Tollfree: 1-888-847-0517 www.boldstarinfrared.com

Infrared within reach!

Canada's lowest-cost infrared camera.



iS ADVANTAGES

-  High Sensitivity (.1 deg C) & Accuracy
-  Easy to Aim - Focus Free
-  Four hour battery
-  Easy to Hold 340g
-  2% Accuracy
-  5000 JPEG Images

\$2995.00 CDN



1-800-613-0507 X24 or X25
or email IRCanada@flir.com for more info



The Global Leader in Infrared Cameras

www.flir.ca

INFRA CANADA 2008

Canada's only InfraRed Imaging & Maintenance Conference
Register for a chance to WIN Canada's newest Professional IR camera!

Register NOW!

► Banff – September 22 - 24

To register or for more information visit: www.infracanada.ca



ECAO/IBEW Volunteers (from left) Richard Mucha, Kimoy-Lima Letren, Virginia Pohler, Susan Boorman and Corina Hicks

7 a.m. winding down past 5 p.m., both high school students and post secondary apprentices worked hard to complete a series of typical electrical tasks. Congratulations to all participants that made it to this level of competition. We are pleased to announce the success of the following IBEW medalists:

- First Place Gold Medalist – Daniel Lee, IBEW Local 105

Apprentice (currently working for K&S Electric)

- Second Place Silver Medalist – Frank Natale, IBEW Local 303 (currently working for E.S. Fox).

We are also pleased to announce that Rick Moriarty, IBEW Local 353 Apprentice (currently working for Black & McDonald) won silver in the Industrial Wiring Competition.



Construction Safety Association of Ontario



If you work in Ontario construction, you're a member of CSAO. That means you're entitled to a wealth of information on preventing occupational illness and injury.

- ✓ Training programs
- ✓ Books, CDs, videos
- ✓ Magazine and email updates
- ✓ Consultation.

416-674-CSAO (2726) info@csao.org www.csao.org

IN RECOGNITION

ECAO and IBEW CCO would like to recognize the following companies & organizations for their support in donating materials and resources for the Skills Ontario Technological Electrical Wiring Competitions.



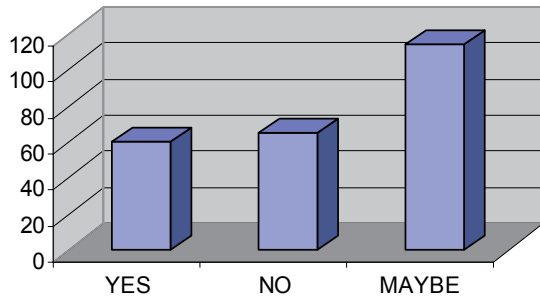
IBEW Local 105 Hamilton
IBEW Local 353 Toronto
IBEW Local 804 Central Ontario



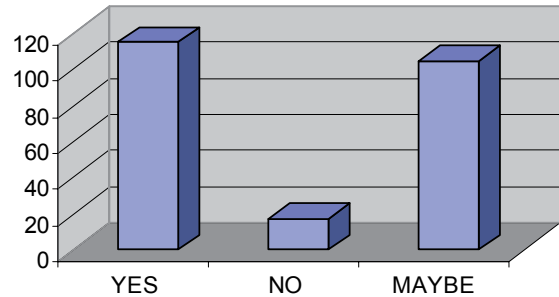
Congratulations to medalist winners and all IBEW apprentices that participated.

The Careers Booth and Elementary Workshop promoted the career possibilities available in the electrical industry. It provided an opportunity for visitors and students to participate in a hands-on interactive environment, demonstrating the use of electricity and its various applications. Feedback statistics provided by OTSC show an increased awareness by both students and teachers to the career options available in skilled trades and technologies. "As a tradesperson and a Board Member to Skills Canada-Ontario, it's very rewarding to educate our youth about career options and opportunities," says Peter Olders,

Before this event, had you ever considered a career in the skilled trades and technologies?



After attending this event, are you interested in exploring career options in the skilled trades and technologies?



Provincial Training Coordinator,
Communications Training Centre.

Student Evaluations

Student Comments:

- We learned about electricians and what they do.
- I learned that a lot of fires are caused from improper wiring.

- I learned how to bend pipes, connect wires and fish wire. Also how they run power from one end of the building to another and how they connect lights to switches.
- Overall the best thing about this whole event was being able to explore new careers that impact our lives later on.

Teacher Feedback:

- The students were totally focused when involved in the hands-on workshops.
- [Participating in the workshops] gives [the students] an option that they may not have thought about.

Good for construction.

When you turn to Goodmans, you find a law firm that knows the business and the law. From drafting complex design build agreements to litigating multi-party disputes including tendering, breach of contract, negligence and construction lien claims, Goodmans is regularly retained to act on a full range of construction related matters. With exceptional lawyers backed by a dedicated team, you'll discover what our clients already know – that good people really are good for business. To deal directly with Goodmans Construction Law Group, call Howard Wise at 416.597.4281.

Goodmans^{LLP}

Barristers & Solicitors / goodmans.ca



Demonstrating Network Cabling



Elementary Students Get Orientation at Workshop

Our level of success would not be possible without the support of our industry suppliers that generously donate equipment, materials and resources. We are grateful that we can count on them each year!

Thanks to all volunteers and competition judges, who contributed their time and expertise and in particular; Gord Thomson, Gord Thomson Electric Ltd., Sean Connolly, Kearsley Electric, Derek Green and Lindsay Plas, IBEW Local 105, Virginia Pohler, IBEW Local 120,

Kimoy-Lima Letren, Richard Mucha and Elizabeth Benitz, Toronto Joint Apprenticeship Council, Dolores King and Ben Durrer, IBEW Local 804, Bev Stone and Walter Boettger, Conestoga College, Tom Quackenbush and Joe Gajdacs, Electrical Safety Authority, Terry Moore, Trade Mark Industrial, Glen Hicks, A.R. Milne Electrical Ltd., Bob Nelson, Canadian Standards Association, Rick Reinhart, The Roberts Group, Steve Laffrade, Construction Safety Association of Ontario, Tom Harrower and Don

McNichol. Special thanks to Steve Dempsey, IBEW Local 353. Steve has volunteered behind the scenes for over 10 years mentoring apprentices to the Skills Ontario Industrial Wiring Competition. We are proud that our seasoned electricians - such as Steve — pass on their enthusiasm and extensive knowledge to our apprentices.

IBEW/ECAO Skills Committee: Corina Hicks, Skills Electrical Wiring Tech Chair from IBEW Local 804, Sue Boorman, ECAO, Patty DeMonte, IBEW CCO, Peter Olders, Communications Training Centre, Clarke Hurley, IBEW Local 105, John Salmon, A.R. Milne Electrical Ltd., Ed Nott and Wayne Lawrence, IBEW Local 353, Bill McKnight and Erik Hueglin, Toronto Joint Apprenticeship Council, Ian Reece, Construction Safety Association of Ontario.

The ECAO and the IBEW Committee are well underway with preparations for the 20th Annual Ontario Technological Skills Competition to be held May 4-6, 2009 in Waterloo, Ontario.



**Create open spaces with our completely flush
poke-through/in-slab power/voice/data floor outlet**

- New or Retrofit Construction
- Commercial/Retail
- Airports
- Residential/Condos
- Systems Furniture
- Raised Floors



- Variety of Configurations, Covers & Finishes
- Sturdy Construction/ Easy Installation
- Two Hour Fire Rating
- CSA & UL Approved

www.multiconnect.ca
From **NOCOM**

For ordering or information
(613) 831-8102 - Ext. 239
1 888 225-2478
multiconnectinfo@nocom.ca



The Nine Personality Profiles of Affluent Investors: Where Do You Fit In?

By Stanley Tepner

In ordinary life we use hundreds, if not thousands, of adjectives to describe someone's personality, such as: he's outgoing, she's considerate, he's nerdy, she's inspirational... and so on.

Until recently, however, there haven't been any truly descriptive monikers to describe someone's financial personality.

In the groundbreaking book, "Cultivating the Middle Class Millionaire: Why Financial Advisors are Failing their Wealthy Clients and What They Can Do About It," authors Russ Alan Prince and David Geraciotti applied the results of their research to identify nine different financial personality profiles.

Each personality profile was given a unique name, which are as follows (listed in order of most frequent to least frequent occurrence in their sampling):

- Financial Stewards
- Financial Phobics
- Independents
- Anonymous
- Moguls
- VIPs
- Accumulators
- Gamblers
- Innovators

This article will help you determine which personality profile best describes you. It will also help you determine whether the quantity and quality of financial advice that you are currently receiving is commensurate with the kind of advice you should be receiving.

A perceptive financial advisor should focus on accurately identifying your profile as quickly as possible, in order to customize the most appropriate set of services to fit your particular personality. Now, let's take a closer look at the nine profiles.

"No theory of the universe can be satisfactory which does not adequately account for the phenomena of life, especially in that richest form which finds expression in human personality."

– B.H. Streeter

* * * * *

If you are a **Financial Steward**, you are the most frequently encountered personality profile in the authors' research. Your primary focus is on your family's needs, both short-term and long-term. You often do not have a high tolerance for investment risk, and you might not have strong investment knowledge. You often ask questions such as, "can you achieve the goals of my family?" or "how is this investment going to benefit and affect my family?"



Developing and following a comprehensive financial and estate plan is very important to you, as the plan

can provide the roadmap that can gauge your progress toward meeting your goals, which are always tied to doing the best for your family.

If you are a **Financial Phobic**, the second most common personality profile, you may also have a lower tolerance for investment risk, and have little knowledge of what investment and financial planning is all about. You are often confused and frustrated by the burden of having to deal with your wealth. You know that you need your investment assets to serve you properly, but you aren't interested in investment strategies and products, and don't want to understand how they work.

If you are a **Financial Phobic**, you are probably someone who has had wealth thrust upon you, as in



Providing Multi-Trade Services to Canada's Construction Industry for over 100 years



Comstock

An EMCOR Company



OHSAS 18001:1999
OHS 504559

Mechanical
Electrical
Communications
H.V. Underground

Millwrighting
Rigging
Iron Working
Boilermaking



ISO 9001:2000
FS 64468



Comstock Canada Ltd.
3455 Landmark Road Burlington, ON L7M 1T4
Ph: 905.335.3333 Fax: 905.335.0304
www.comstockcanada.com

Building Canada with Offices from Coast to Coast

a windfall situation, and you have had little, if any, prior experience managing money. You may be a recently divorced or widowed woman, a recently laid-off employee with a severance package to deal with, or a business person who recently sold your enterprise. You first want to know that you have selected the right person in an advisor to help you — someone who can relate to you and understand you — and not focus your relationship on explaining the technicalities of your investments.

If you are an **Independent**, you are most concerned with creating financial freedom for yourself. You have a specific personal goal (or set of goals), such as retiring at age 60, or travelling to all seven continents of the world. You are investing to achieve these goals, and so that you do not have to be dependent on others to fulfil your dreams. You likely have some investment knowledge, but view investing as a “necessary evil” to help you achieve your goals, and have retained a financial advisor to help you sort through the choices that exist. You are best served in developing and following a comprehensive financial plan to provide peace of mind, achieve financial freedom and see your dreams to reality.

If you fit the **Anonymous** profile, you value confidentiality and financial secrecy above anything else. You tend towards a conservative approach to investment risk, and insist that any advisor you deal with maintains your records and personal information private and well-ordered.

If you are a **Mogul**, you invest to acquire financial clout, similar to the **Independent**. Unlike the **Independent**, however, you want to wield your clout to influence other lives, not just your own. You like to be in control. Tax and estate planning is important to you, because you may opt to create private foundations, trusts and wills that enable you to control others, even from the grave. As an investor, you are comfortable with moderate risk, but you do not necessarily possess extensive knowledge about investing.

If you are a **VIP**, you value the respect and esteem you receive from others. Investing, especially in certain products, firms and structures, may make you feel more important, powerful and recognized. You may choose to create a private foundation,



The Perfect Contractor's Software

One-Touch Arc Flash, Design and PDC Tools Now Available in EasyPower V8.0
What used to take hours or even weeks can now be accomplished in seconds!

Arc Flash | Studies, Work Permits, Boundary Calculations, and More

Prevent expensive fines and litigation by rapidly creating and implementing a comprehensive arc flash program. Reduce risks and improve plant safety, while complying with OSHA, NFPA, NEC, and ANSI regulations. Save valuable time and money: Prepare for emergencies by identifying all critical PPE levels, and clothing needs!

SmartDesign™ | Automated Design for Low-Voltage Systems

EasyPower SmartDesign™ completely automates equipment sizing in the design process, saving countless hours of manually rerunning calculations to verify code compliance. It also generates comprehensive reports to alert you to possible problem areas, giving valuable insight. SmartDesign™ does this and more!

SmartPDC™ | Protective Device Coordination Made Easy

EasyPower SmartPDC™ fully automates the tedious, labor-intensive work of setting protective devices — just highlight an area to coordinate, and one click completes the task for you. Includes reports and detailed descriptions!

Short Circuit, Power Flow, Dynamic Stability and more...

EasyPower®, the most automated, user-friendly power system software on the market, delivers a full lineup of Windows®-based tools for designing, analyzing, and monitoring electrical power systems. EasyPower's ease of use and integration increases your productivity 3X over all other software products!

Watch EasyPower in action! Online videos and Free Demo available at www.EasyPower.com.

Power made easy

intelligent | intuitive | instantaneous
power system software

www.EasyPower.com | 503-655-5059 x35



for example, not for the control that it provides to a Mogul, but for the prestige associated with such a structure.

As an investor, you are comfortable with moderate risk, and have moderate investment knowledge. However, you are probably very comfortable with delegating responsibility to a team of talented advisors to provide you with the best advice and information in order to make informed decisions.

If you are an **Accumulator**, your single focus is on having the most money at the end of the day. You have a more aggressive appetite for investment returns, a higher tolerance for investment risk, and a moderate or greater level of investment knowledge. You want to win.

If you are a **Gambler**, you get your thrills and excitement from the risks of investing, as long as you are winning. You tend to be a more aggressive investor, and have a higher degree of investment savvies. Investing may be your hobby, and you may have very strong, well-formed opinions about the market and your invest-

ments. While you may have good working relationships with one or more financial advisors, you are frequently a do-it-yourself investor. If you are a Gambler, you are the second least frequently encountered personality profile.

If you are an **Innovator**, you are the most infrequently encountered investment personality profile in the authors' research. You are the most technically knowledgeable of all the profiles and you may be interested in more complex and leading edge investment structures, such as hedge funds and derivatives. As an Innovator, you tend to be very aggressive, and your tolerance for investment risk is very high. You demand a high level of technical expertise in your advisors and you are always ready to discuss the intricacies of the market, even in the finest details.

* * * * *

These are the nine personality profiles of affluent individuals. Did you recognize yourself? Where did you fit in? Do you feel that the needs of your personal profile are being properly met



High Voltage Underground Overhead
Substation Maintenance
Electrical Contractors

**CARLETON
ELECTRIC LTD.**

www.carltonelectric.com
22 D Jamie Avenue, Nepean, ON K2E 6T6
Phone: 613.224.1588 Fax: 613.224.1975
info@carltonelectric.com



MMM GROUP

- Planning, Design and Field Inspection
- Sustainable Building Solutions
- LEED Certification Designs
- Facility Assessments
- Specialty Lighting Design
- Commissioning
- Contract Administration

100 Commerce Valley Dr. West, Markham, ON L3T 0A1
t: 905.882.1100 | f: 905.882.0055

For further information or to contact any of our other offices, please visit our website:
www.mmm.ca

COMMUNITIES

TRANSPORTATION

BUILDINGS

INFRASTRUCTURE



right now? If they aren't, then perhaps it's time for you to adopt one more personality adjective and be "demanding."

* * * * *

Addendum to the article, "A New Breed of Tax-busting Mutual Fund" in the Summer 2008 edition: In all investment return scenarios the new tax-efficient mutual funds are far more tax friendly than traditional corporate class mutual funds and their tax-efficient component T-SWP series. The extent of these new funds' efficiency is dependent upon the mix of investment and tax choices selected by the funds' investors. The broader the mix of funds sold, the greater the allocation assets to more than one tax class, and the higher the value of assets in these funds' non-registered money market fund, the more tax efficient the funds become. In years when the funds as a group achieve exceptional returns, ROC investors, and to an even lesser extent Compound Growth investors, may receive some capital gains distributions. However, these funds have now been available for two tax years and to date have achieved their investors' tax objectives with 100 per cent efficiency. No other fund structure in the country has achieved such comprehensive tax efficiency over that period.

* * * * *

Stanley M. Tepner, MBA, CA, CFP, TEP, is a First Vice President and Investment Advisor with The Tepner Team at CIBC Wood Gundy in Toronto. He can be reached by telephone at (416) 229-5566 or 1-(800)-488-8688 or by e-mail at stan.tepner@cibc.ca.

The views of Stanley Tepner are not necessarily those of CIBC World Markets Inc. Clients are advised to seek advice regarding their particular circumstances from their personal tax and legal advisors. Commissions, trailing commissions, management fees and expenses all may be associated with mutual fund investments. Please read the prospectus before investing. Mutual funds are not guaranteed. Their values change frequently and past performance may not be repeated.



**SYST
M**

**ready-made
starters to
60 HP right
out of the box**



- NEMA 1 heavy gauge enclosure with back plate and knockouts
- Mounted DIL M contactor (to 60 HP) and Class 10 ZB overload relay
- Various pilot device modules and an optional control power transformer all connect via quick-connectors
- Pre-mounted reset button on cover
- Pre-installed grounding terminals
- Four full-voltage starter types:
 - non-reversing non-combination
 - reversing non-combination
 - non-reversing combination (fusible)
 - reversing combination (fusible)

**Call now for your free catalog
1.877.276.3378**

MOELLER

Return to Work and Re-employment

By Michael Zacks

Background

Construction employers need to get ready for *Ontario Regulation 35/08*, the new construction industry regulation that establishes the foundation for return to work and re-employment. It comes into force on September 1, 2008. The regulation can be read on the Ontario Government e-laws site at http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080035_e.htm

When the *Workers' Compensation Act* or WSIA came into effect in 1998, it imposed cooperation obligations on employers and workers in early and safe return to work, and made changes to the earlier *Workers' Compensation Act* re-employment provisions for the construction industry. In particular, it provided that special rules could be made for construction to recognize the dynamic nature of the industry in terms of location of worksites, and the duration of construction employment.

The WSIB is also considering new policies to flesh out the regulation. The policies will see the WSIB become more involved in how employers manage their return to work process.

Perhaps the most significant difference between the construction



industry and other employers is that the WSIA removed the re-employment thresholds that previously applied to all employers. Once the regulation comes into effect, construction employers, regardless of the number of workers, or how long the worker was employed will have re-employment obligations, unlike non-construction employers who only have re-employment obligations if they have 20 or more workers, and the worker was employed for at least a year.

RTW Obligations

Part II of Regulation 35/08 sets out the workplace parties' early and safe return to work obligations. The obligations are essentially the same

as what is in the s. 40 of the WSIA that apply to other employers, and are a mirror image of the worker's obligations:

s. 3. The employer of an injured worker shall co-operate in the early and safe return to work of the worker in accordance with the following requirements:

1. The employer shall contact the worker as soon as possible after the injury occurs and shall maintain appropriate communication throughout the period of the worker's recovery and impairment.

2. The employer shall attempt to provide suitable work that is available.
3. The employer shall give the Board such information as the Board may request concerning the worker's return to work

Any particular construction industry concerns about the RTW obligations and how they should function in the construction industry will need to be addressed by WSIB policy. Likely, construction employers and workers will be subject to essentially the same RTW policies as other employers given the wording of the Part II obligations.

Re-employment Obligation and Duration

The re-employment obligations and durations follow the model outlined in s. 41 of the WSIA. The significant

differences relate to adjusting the employer's obligation for the temporary nature of construction industry worksites and employment, both of which are recognized by *Regulation 35/08*.

The Obligation

The obligations are fine tuned for the needs of unionized and non-unionized workplaces. Basically, the regulation obliges employers to make re-employment offers based on the worker's medical fitness to do the pre-injury job, and if not on the worker's fitness to do suitable work.

It recognizes that offers need to be made based first on available work in the worker's trade and classification, then trade if available, then any construction work. Where multiple positions are available, consideration must be given to

the duration of the job and its proximity to the worker's home.

Duration of the Re-employment Obligation

The duration provision adds a new criterion to the statutory duration of the earliest of

- the second anniversary of the date of injury;
- one year after worker medically able to do essential duties of pre-injury job;
- the date the worker reaches the age 65.

The new criterion for the industry is the date on which the worker declines an offer of re-employment from employer. Such a refusal will have a significant impact on both the worker and employer, and will likely be fleshed out in policy.

DEHN stops Surges.



Safety for your Property.

To be Sure - use DEHN.

Lightning & Surge Protection Solutions.

R3&A Limited - Cobourg

Phone (1) 905 377 8577

Fax (1) 905 377 8578

info@r3alimited.com

Website www.r3alimited.com or
www.dehn.de

NONMETALLIC CABLE RACKS

**For Power & Communications
Manholes and Vaults**

- Nonmetallic
- Will Not Rust or Corrode
- High Load Capacity
- No Grounding or Bonding
- Molded from UL Listed
Glass Reinforced Polymer
- Insulators Not Required
- Excellent Dielectric Properties



**UNDERGROUND DEVICES
INCORPORATED**

3304 COMMERCIAL AVENUE • NORTHBROOK, ILLINOIS 60062
Phone: (847) 205-9000 • Fax: (847) 205-9004
Website: <http://www.udevices.com>

Accommodation

Regulation 35/08 requires employers to accommodate the work or the workplace to the extent that it does not cause undue hardship. The regulation does recognize that although construction employers must accommodate the work, they are not always in a position to accommodate the workplace if they do not control it.

The regulation also empowers the worker or the WSIB to require the employer to give the worker written notice of the particulars of accommodation. Although a similar provision was in the previous regulation, it was only at the request of the Board. Now the worker can also require particulars. Failure to provide particulars may constitute a breach of the employer's obligations

under the Regulation resulting in a penalty of up to one year's pre-injury average earnings.

Presumption of Breach

The presumption provision in the Act is replicated in the regulation. An employer that terminates a worker's employment within six months of re-employing him is deemed to be in breach of the obligation. However, the regulation does recognize the temporary nature of construction projects, so that there is not a breach if the worker is terminated before the six-month period because the project ends.

Employers are however obliged to continue the re-employment at the project or another project if work becomes available at those locations. A failure to do so will be presumed to be a breach if it occurs within six months of the initial re-employment.

The presumption can be rebutted by showing that the termination was not the result of the worker's injury.

The OEA will be very pleased to answer any questions you might have about the regulation, and to advise you on any disputes you might have with the WSIB when the regulation comes into force. I understand that the WSIB is planning an information program, as well. You may contact us at (416) 327-0020 or at 1-800-387-0774. You may also email us at askoea@ontario.ca. All of our advice is confidential, free and thorough.

Michael Zacks is acting Director and General Counsel at the Office of the Employer Advisor. He can be reached at Michael.Zacks@ontario.ca



ENGINEERING & DESIGN SERVICES

- * Substation Design up to 230 kV
- * Tender & Specifications Preparation
- * Distribution System Design
- * Co-ordination Studies and Short Circuit Analysis
- * Ground Grid Design
- * Load Flow Analysis
- * Arc Flash Studies
- * Commissioning and Systems Start-up



THE K-LINE GROUP OF COMPANIES

12731 Highway 48
Stouffville, Ontario
Canada L4A 7X5



K-LINE
MAINTENANCE & CONSTRUCTION
Substations
Overhead Lines
Temporary Services
Fleet Services
Power Services
Phone: 905-640-2002
Fax: 905-640-8887

K-TEK
ELECTRO-SERVICES
Distribution Design
Engineering & Field Services
Laboratory Services
Phone: 905-640-0660
Fax: 905-640-8566

WWW.K-LINE.CA



CANADIAN STANDARDS
ASSOCIATION

2009 CE Code / CSA Z462

Conference Series on Workplace Electrical Safety

Toronto | November 5 and 6

Edmonton | October 21 and 22

Burnaby | October 27 and 28

Winnipeg | November 13 and 14

Moncton | November 25 and 26



This five-city, two-day conference series addresses changes in the new-for-2009 Canadian Electrical Code as well as the launch of the NEW CSA Z462 Standard, Electrical Safety in the Workplace.

TO REGISTER OR FOR MORE INFORMATION:

CALL : 1 800 463-6727

E-MAIL : seminars@csa.ca

learningcentre.csa.ca

Sponsorship opportunities still available;

please contact **Steve Onisto**, Project Manager
at steve.onisto@csa.ca for more information.

The Canadian Standards Association, with support from regional partners including The Electrical Safety Authority, has brought together an expert faculty of industry, government and legal experts.

This national conference series addresses unique regional issues, while covering the aspects that affect Workplace safety including Arc Flash Prevention / Protection, Product Safety, PPE, procedures that address facilities management, technical training and management systems as well as your legal obligations when managing workplace electrical safety.

Don't miss this important conference series!

Update on Fused Leads from Cal Test Electronics

By Bill Hansen



Cal Test Electronics is the manufacturer of model CT3386CA, the High Capacity (HC) fused leads utilized in the Electrical Safety Authority (ESA) Fused Lead Pilot Program in Ontario, Canada, that have been in use in the field for the past year-and-a-half. During that time, there have been reports regarding possible quality issues. Although there have been no reports of accidents or injuries resulting from these issues, we felt it necessary to bring these quality issues to all users' attention and describe corrective actions taken for resolution.

The overall goal of the ESA program, and the resulting selection of our HC Fused Leads, was user safety. The CT3386CA probe was recommended because it met the stringent requirements as set forth by the ESA in conjunction with the Contractor

Advisory Committee (CoAC). These safety features, though not exhaustive included:

- 1) 200,000 A IR capacity Class CC fuse
- 2) built-in blown fuse indicator lamp
- 3) locking safety covers on all hazardous live points
- 4) a fuse rejection feature which prevents the user from replacing the 600 V Class CC fuse with a lower rated fuse that could result in the probe's destruction and user injury.

The use of fused leads is one important step you can take to protect your safety when using a multimeter. Your feedback as part of this program has been valuable. Our goal is to continually improve the product to meet the needs of our users and increase your confidence in the use of fused leads as an important personal safety measure. Our intent with this article is to inform

users of the reported issues, which has led to product enhancements as described below.

Quality issues addressed:

1) *Tip Durability Issue:*

- a) Description of Nonconformance: The tip may separate from rod assembly under tightening while attaching threaded accessories.

- b) Root Cause: The initial engineering analysis did not consider the torque loading when attaching threaded accessories. The original probe tip was a two-piece design with the contact tip being press-fit assembled into an extension rod. For our North American application a 2 mm (0.080") diameter tip with 8-32 UNC accessory thread was

substituted for a 4 mm banana plug contact so local power receptacles could be probed. Where the banana plug could rotate and not transmit torque to the press-fit joint, the fixed 8-32 UNC thread could transmit a torque force when accessories were affixed.

c) Short-Term and Long-Term Corrective Action:

- i) Solder reinforcement added to joint between tip and rod body.

Implementation:

Completed (March 2007).

- ii) The warranty on all probe assemblies increased from 1 year to 2 years to cover unit replacement, as required, on units in the field.

One issue that is difficult to control is the bending of the 2 mm tip during use. This problem is inherent in all probes using this tip diameter. The issue in our case is amplified slightly due to the size and length of the probe's body, which increased the bending arm. The industry standard brass tip work-hardens as it is

bent. Attempts to straighten it once bent eventually result in breakage. Materials such as stainless steel have been considered but at an increase in cost and a decrease in conductivity. Therefore there are not many effective methods to improve this issue other than extolling users to exercise additional care during use.

2) *Probe Junction Issue (poor low temperature performance):*

- a) Description of Nonconformance: The adhesive used to bond the probe's headpiece to the fuse holder body failed under impact (shock) after experiencing a low temperature soak (-20° C).

- b) Root Cause (why did it happen?): The adhesive selected was not compatible for use at low temperature.



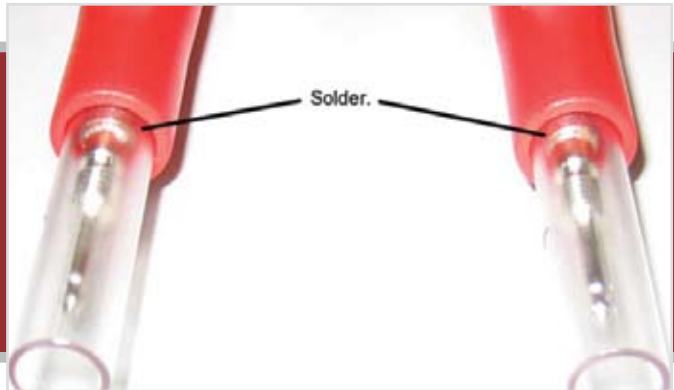
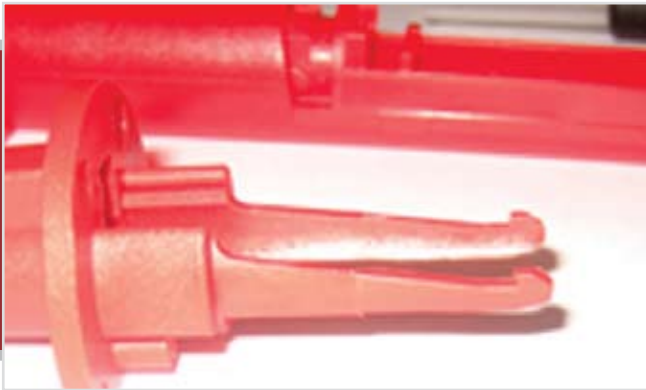
TOTAL POWER

Generating Peace of Mind

Generators and UPS Products

- Diesel, Natural Gas, Bi Fuel and LP Gensets
- UPS and Secure Power Systems
- Industrial, Commercial, Residential

Tel: (905) 670-1535 Fax: (905) 670-1317
sales@totalpowerltd.com
www.totalpowerltd.com
 Toll Free: 888-870-9152



Although the assembly passed CSA testing for shock and vibration, there was no requirement for a low temperature test condition. Reference IEC61010-031.

c) Short-Term Corrective Action:

- i) Additional low temperature adhesive to be added to the outside of the identified critical joint on stocked units. Adhesive used LOCTITE 460.
- ii) If you have experienced this problem, stop using the fused leads and return them for

replacement in accordance with the warranty provisions. Warranty on probe assemblies was increased from one year to two years to cover unit replacement, as required, on units in the field.

Target implementation:
Immediate.

d) Long-Term Corrective Action:

New construction will have modified mold tooling to incorporate a mechanical locking mechanism in addition to the improved adhesive. Target implementation: September 2008.

Recommendations:

Due to the slightly more complex nature of these fused products, it is recommended that the user take more care when using or storing them to avoid any damage. They should be considered an essential part of one's safety equipment and treated accordingly. As always, one should visually inspect the probe body, lead wires and instrument connector for wear or damage before each use. The lead wire is of two-ply construction with the inner layer tinted white. If a user sees this white inner layer, the probe assembly should not be used.

Should you have any comments, questions, or concerns, please do not hesitate to contact Cal Test Electronics' Authorized Canadian distributor for this probe.

Your Regulatory Experts

Representing the interests of the Electrical Contractors Association of Ontario, and its members, before the Ontario Energy Board.

For more information please call (416) 360-8511 or email Robert.Frank@macleoddixon.com or Ian.Mondrow@macleoddixon.com.

Macleod Dixon LLP

www.macleoddixon.com

Calgary • Toronto • Moscow • Almaty/Atyrau • Caracas • Rio de Janeiro

Robertson Electrical Wholesale

290 Vaughan Valley Blvd
Vaughan, Ontario L4H 3C3

P# 905-856-9311

...or Cal Test Electronics directly at:
Cal Test Electronics

22820 Savi Ranch Pkwy
Yorba Linda, CA 92887 USA

P# 714-221-9330

F# 714-921-9849

info@caltestelectronics.com

ONTARIO'S ORGANIZED

INDUSTRIAL . COMMERCIAL . INSTITUTIONAL

CONTRACTORS DIRECTORY

www.iciconstruction.com

ARE YOU THE BEST? STAND OUT FROM THE REST.



Register Today
at www.iciconstruction.com

PROMOTE YOURSELF

Password will allow
unique access to
statistics & info

**GET UPDATES
GET LISTED**



www.iciconstruction.com



CELC Develops Financing Program for ECAO Members

By Ross Powell and Mark Irwin

Forecasting the duration and magnitude of a change in the economic environment is a challenge in a slowing economy. Information sources in general are not particularly encouraging about the direction of the global economy. In Ontario, the cost of business continues to increase and business conditions and opportunities vary widely from region to region.

Contributing to the challenge, sourcing appropriate finance capital (and objective advice) can be time intensive and evaluating the myriad of choices can be complex. In short, business leaders are closely scrutinizing their financial structure and business plans.

One of the challenges we at Canadian Equipment Leasing Corporation (CELC) faced at the inception of this ECAO member program was

to ensure that we would be able to respond to what members wanted. Our initial goal was to ensure that we understood some of the financial management issues that were important to you. We went out into the field, met some of the members of the association and asked a lot of questions! There were some striking commonalities in the financial priorities contractors (large and small) focus on today; working capital and operating cash flow are among the more important financial issues.

To respond to the unique financial requirements of electrical contractors we believe that the correct approach is to start with an understanding of the financial elements of the electrical contractors' business. Insight into your business plans and objectives helps complete the picture and, in our opinion is essential in crafting effective and sensible financial solutions.

In short, a "canned" program does not effectively address the varied and unique differences within the association membership.

In the very near future, the ECAO will be sending you an introductory letter outlining our unique services available to you. If you are looking to finance or lease capital assets, lower your cost of business financing or would simply like a second opinion on funding issues, feel free to call us anytime.

Ross Powell is President of Canadian Equipment Leasing Corporation and may be contacted at rpowell@celc.ca or 416-342-0603.

Mark Irwin is Director of Leasing with Canadian Equipment Leasing Corporation and may be contacted at mirwin@celc.ca or 416-342-0603.

Visit their website at www.celc.ca.

LYONS GROUP

We combine experience along with innovative approaches to working, interacting, communicating and problem solving with government and the private sector in all its forms.

Visit our website at www.LyonsGroup.ca

Jeffery Lyons
jlyons@lyonsgroup.ca

Kristin Card
kcard@lyonsgroup.ca

Cristal CONTROLS

Innovation
in Electronic Energy Control

Dim-off
Partner

- Low Voltage Lighting Control
- Load Shedding System
- Peak Control System
- Submetering System

Tel.: 1.800.681.9590 ext 222
or at cristal@cristalcontrols.com
Available territories

www.cristalcontrols.com

Liquid Filled Transformers

up to 10MVA with primary voltage through 69kV



TRANSFORMATEURS^{LTEE}

PIONEER

TRANSFORMERS^{LTD}

AN ISO 9001 COMPANY

www.pioneertransformers.com

SALES: 905 625 0868



Earn More Profit\$ While Having More Time Off



By M. Lynne Jacob

H“How will my three-year vision (my Business Plan) ever come to fruition, when I’m so busy putting out fires and dealing with crises every day?” you ask. By planning, that’s how.

Strategy #2:
Plan the time to Plan ...
and Honour it!

After attending one of our workshops(www.mljcoaching.com/jump_start.htm) which provides an introduction to our 7 key strategies,

a client informed me that he had reflected more on his business in the three weeks following this workshop than he had in the 15 years he had been in business.

He enrolled for the year-long training & coaching program because he said he was tired of just putting his head down and ploughing through the day ... day after day after day. The workshop showed him that there are other ways of doing it and the ideas that re-surfaced within him motivated him to

get the help he needed to "change the way we do things around here."

Other clients in the construction industry tell me they're fed up with putting out fires just to make a living. They want a business that runs somewhat smoothly most of the time, allowing energy to deal with a few urgent issues that come up, as opposed to constantly dealing with urgent issues, leaving no time for creating a business that's within their control.

Planning is what it takes.

Honouring the planning seems to be the hardest part, though. When you see what's slotted into that chunk of time that you're about to brush off, what are the consequences for brushing off that task? In other words, what are the benefits you had in mind for having put that task into your planning for that particular day at that particular time? If there's no benefit to getting that item done, then there's no big deal about not doing it. Brushing this off today makes it easier to brush other tasks off tomorrow.

You need to know the value of everything you do. You need to assess its importance and its urgency. If you determine it's important, ask yourself what the benefit of doing it is. Then ask yourself what the outcome would be if it never gets done.

Prioritizing your activities makes it easier to plan your time. A, B, C & D every activity on your endless "to-do list."

D is for Dump ... immediately. Don't even give it a second thought.

"C" category activities can be done by others. One of the hardest things for a self-employed person to do is to hand the reins over to his/her staff. Why is this? Because the staff aren't competent or trustworthy? Then why are they still there?

Create systems for everything you do ... and I mean everything ... and it will be so much easier to train

others to do those activities in your place. Not only that, but it will also ensure the survival of your business should (heaven forbid) something drastic ever happen to you.

If you have a "C" activity that isn't worth training someone else to do, give yourself a short time frame during which you will either do it yourself or the activity becomes a

Transformers for the 21st Century

Losing Bids? Labor Cost too High?

Switch to
Synergy Energy
Transformers

NEMA TP-1 & CSA 802.2 Efficiency compliant (Intertek verified)

With
SMARTSHID[®]

Pallet Jack is the only equipment needed to Lift,
Move and Position the Transformer (Floor Installation)
Ceiling suspension brackets are included

HUGE
time and money
Savings
on installation
with the
innovative



SMARTSHID[®]

Harmonic Mitigating
& High Efficiency
Transformers

 **Synergy
Energy**
info@synergyenergyinc.com
1-866-866-5822

www.SynergyEnergyInc.com



“D” priority. “D” stands for Dump, remember, so quickly dump it. Thirty days works for me, and I have Dumped a few costly issues. I know, however, that the pressure looking at, yet not finalizing, the tasks slows me down sufficiently to cost me in productivity day after day after day. Just DUMP it!

“B” activities are those tasks that are important enough for your business to spend time on doing, but they’re not so urgent that they take priority over an “A” activity. If they can be delegated, slot some time into your agenda to train someone else on these tasks. They’re important enough that they’ve been rated “B”, so it requires thorough training to have them done well by others. If you currently don’t have a lot of time during which you can train others on these activities, even an hour’s training each week will get them moving, and we can always find one hour of poorly used time in each week.

Alternatively, they can and will wait until you take the time to address

these activities. Again, even if you only spend one hour per week on them, they’re getting done.

“A”-priority activities, obviously, take top priority on which you, ideally, spend the vast majority of your time. Making “training” an “A” priority will create a business that can be run much more smoothly because the business now has systems on which everyone is trained. Systems are written down. Written documents are, in effect, training manuals.

When there’s a turnover in staff it’s easy to train the new hire on the existing systems because

- ▲ others know how the system runs;
- ▲ there are training manuals for easy reference; and
- ▲ employees can train the new hires, and you only need to follow up to be sure the jobs are being done the way you want them done. Finding weaknesses in your employees’ training of new hires provides you with valuable information for refresher training for existing staff, as well.

Planning the growth of your business starts with your three-year vision (the non-traditional Business Plan as mentioned in the previous issue).

One-year plans are then done by the principal (business owner or manager) off-site, in a one-day retreat.

Ninety-day goals can involve the key employees. You can either set the

90-day goals yourself or, sharing the one-year plan, ask others to work on the 90-day goals with you. I would block off a half-day for this.

Monthly management meetings include all of the key personnel, making sure you’re on track to reaching your 90-day goals. Agendas ensure brief and concise meetings. No doubt you’re well aware of how easy it is to get off-topic and then not cover all the issues on the list before running out of time. Have you ever left a meeting wondering what, precisely, was decided in the meeting? Be sure to appoint someone as secretary of the meeting, who distributes the “minutes” to everyone soon after the meeting took place – not at next month’s meeting. These minutes show who agreed, or was assigned, to complete which tasks and by when.

Weekly reflection is such a powerful exercise for which so few people honour the time. Reflecting on your achievements from last week, and mapping out the current week will be the best 15 minutes you spend every single week of the rest of your life in your business.

Daily tasks make up your “to-do list.” Be sure there is a time value beside each of the items on the to-do list and that these items get

- ▲ delegated to the proper person; and
- ▲ followed up on by the end of the day; ... or
- ▲ slotted into the appropriate chunk of time in your daily agenda.

The key to planning your business' development and growth is to assign yourself appropriate chunks of time into the same days of each week. The chunks of time remain the same; the specific tasks differ from week to week. This way, you know when a task relating to training comes up that it will happen, for example, on a Wednesday afternoon.

It not only takes systems to run your business, but it takes systems to grow your business, as well.

And I'll leave you on this thought — we can plan until the cows come home, but only when we follow through on our planning will we reap the rewards we envisioned when we created our three year vision. That leads us to ...

STRATEGY #3:
FOLLOW THROUGH by holding yourself visibly accountable.



As general contractor for their current home, Lynne identified that while trade-contractors are great on the tools, they lack the knowledge to earn sufficient profit for the number of hours they invest in their jobs, cutting into their time off. As a solution to this problem, Lynne created The Trade-Contractors' Business School. www.TradeContractorsBusinessSchool.ca

*M. Lynne Jacob, Certified
Professional Coach (Diploma)
Lynne@mljcoaching.com
Phone: 613-353-9941
Fax: 613-353-2179*

How "live" is the CAD link to your estimating program?

Channel the power of cadLive to produce faster and more accurate takeoffs.

Now you can capture positive and negative delta quantities to generate your change orders.

cadLive provides on-screen display of takeoff revisions as a designer sends you new drawing versions.

Now THAT's power!



Call for a free online demo and see for yourself the speed at which cadLive delivers

1-800-222-8243
www.accubid.com

ACCUBID

Industry Briefs

Price Increase

DuPont Advanced Fiber Systems has announced a global price increase averaging 10 per cent for DuPont Kevlar and Nomex products. The increase applies across multiple markets and applications and became effective July 1, or as contracts permit.

The business is taking this action in response to extreme volatility in costs for raw materials, energy, transportation and logistics, which cannot be totally offset by aggressive productivity and cost reduction measures.

In addition, DuPont is aggressively investing in Kevlar and Nomex to support the increasing global demand for these products. A previously announced \$100 million expansion for Nomex paper and fibre is on track for third-quarter startup. The most recently announced production expansions for Kevlar at plant sites in Richmond, VA and Cooper River, S.C. exceed \$500 million with additional capacity to begin 2009.

"These pricing actions are necessary to offset a portion of the dramatic increases in raw material, energy and transportation costs, and to continue to invest in Kevlar and Nomex," said Thomas G. Powell, vice president and general manager, DuPont Advanced Fiber Systems. "We will continue our efforts to improve productivity and control costs to minimize the overall impact on our customers, and we remain committed to continuing to invest to meet their needs for growth."

InfraMation 2008

FLIR Systems Inc. recently announced that information on InfraMation 2008 is now available online at www.inframation.org.

InfraMation, the world's largest infrared camera applications conference, will be held November 3-7, 2008 at the Peppermill Reno Hotel & Casino in Reno, Nevada.

InfraMation, now in its ninth year, will feature many customer/end-user presentations on a wide variety of infrared camera applications including building sciences and diagnostics, manufacturing and industrial automation, predictive maintenance, research and development and much more. The conference will also feature three-hour clinics led by FLIR's Infrared Training Center (ITC) instructors and industry experts.

By participating in application sessions and infrared clinics, InfraMation participants will learn new and better ways to use their infrared cameras, improve process efficiency, reduce project costs, improve worker safety, avert production downtime and satisfy insurance auditors.

For a list of conference presentation abstracts visit www.inframation.org/abstracts.asp. For clinic information visit www.inframation.org/ir_clinics.asp.

Exhibitor and sponsorship opportunities are available by contacting Bill Blake at 978-901-8106 or by e-mail at Bill.Blake@flir.com.



Infrared Training

FLIR Systems Inc. recently announced courses being offered during the second half of 2008 by its Infrared Training Center located in Billerica, Massachusetts.

"Getting trained from qualified, experienced thermography professionals is crucial to getting the most out of infrared technology," said Robert Madding, Infrared Training Center Director, FLIR Systems. "For more than 25 years, the ITC has combined theory with real world hands-on workshops and it continues to evolve as our students' needs change and industry finds more and more uses for thermography."

The Infrared Training Center offers entry-level and advanced infrared training and certification, and a wide variety of courses that offer application and industry-specific training. Courses focus on thermography applications including building science, electrical system monitoring, roofing, research and development, gas leak detection, maintenance condition monitoring, and report generating software.

Class sizes are purposely kept small to ensure access to FLIR's staff and application labs.

For additional information on courses and certifications or to register online, visit www.infraredtraining.com.

IT'S YOUR MESSAGE. GIVE IT THE EDGE.



After twenty years in the association-publishing field, Kevin Brown and I decided six years ago to establish MediaEdge Publishing. We wanted to use our skills, knowledge and love of publishing to build a business with a focus on providing exemplary customer service and leading edge association communication solutions.

Today, MediaEdge is the leader in quality custom publishing for associations. We treat every client like our only client, and their agenda is our agenda. These have remained our guiding principles since we first opened our doors.

Customer service is our number one priority.

Robert Thompson

Senior Vice President

Toronto 1.866.216.0860 ext. 229

Fax: 416.512.8344

Give yourself the EDGE

Toronto 1.866.216.0860

Winnipeg 1.866.201.3096

Gainesville 1.877.234.1863

MediaEDGE
PUBLISHING INC.
www.mediaedgepublishing.com

■ Cable Locator System



Brunelle Instruments Inc. introduces the new Model 1000/2000 Wire Cable Locator. The Model 1000/2000 will locate and identify breakers, locate and identify blown fuses, trace concealed wiring in walls and floors, locate junction boxes, find shorts to ground and trace wires in metal conduit. The Model 1000/2000 consists of a transmitter and separate receiver.

The Model 1000/2000 was designed by electrical contractors for contractors. Made in North America, the unit comes complete with an instruction book, which gives a sample test you can make to become familiar with the unit.

Further details are available by calling Brunelle Instruments Inc. at 819-838-5995 or 1-800-263-9096 or by e-mailing jbrunel@abacom.com or at the website www.brunelleinstruments.com.

■ WAGO-I/O-System

WAGO Corporation has issued a new WAGO-I/O-System brochure. The new brochure includes a removable four-panel reference poster that outlines WAGO's range of bus couplers, PLCs and more than 300 digital input/output, analog input/output and speciality modules.



The brochure includes background on WAGO, the WAGO-I/O-System and key 750/753 Series features. It lists available software tools such as WAGO-I/O-CHECK and WAGO-I/O-PRO, as well as WAGO-I/O-System applications with applicable worldwide certifications and approvals.

A copy of the brochure is available for downloading at www.wago.us/products/337.htm or further information is available by e-mailing info.us@wago.com.

■ Extech's 300+ Test & Measurement Product Line

Extech Instruments, a subsidiary of FLIR Systems Inc., has launched Canadian distribution of its comprehensive line of test and measurement equipment.

Electrical, environmental/indoor air quality, HVAC/R, mould/moisture remediation and plant/MRO professionals in Canada will now have a choice when it comes to selecting high-quality test and measurement equipment with built-in infrared technology including digital multimeters (DMMs), clamp-on meters, tachometers, thermometers and over 300 other precision instruments.

"Having served customers in over 92 countries, Extech is extremely pleased to officially introduce Canada to our wide ranging line of feature-rich precision instruments,"

says Jerry Blakeley, president of Extech Instruments. "We are eager to acquaint Canadian customers with the Extech advantage. Our stocking distributors in Canada are working to ensure that our complete product line is available to professionals in the electrical, electronics, environmental/indoor air quality, HVAC/R, industrial safety, restoration and remediation, testing and plant/MRO sectors."

Extech's extensive catalogue covers 16 product categories including airflow meters (anemometers), moisture and humidity meters (hygrometers and psychrometers), fibre optic, light and sound meters (including dosimeters), water quality meters, gas detectors, pressure meters, calibrators, thermocouple thermometers, voltmeters, and numerous other test and measurement devices.

"With the distribution of Extech's expansive line of quality instruments, FLIR Systems of Canada is poised to offer a universe of choices to Canadian professionals," says Greg Bork, regional sales manager of FLIR Systems Ltd. in Burlington, Ontario. "Extech products will be available through Acklands-Grainger (www.acklandsgrainger.com), Birde Marketing (www.birde.ca), E.S. Gallagher (www.esgallagher.com), Safety Express (www.safetyexpress.com) and Sycorp Environmental (www.sycorp.ca)."

Stocking distributors are invited to contact Bork to add the Extech catalogue to their product offerings by calling 1-800-613-0507 ext. 30 or e-mailing greg.bork@flir.com.



EXIT STRATEGIES

General

- You want to have a second way out from wherever you are.
- If such a way does not exist or is not readily apparent, you may be able to create such a way.
- Know the locations of all emergency exits in your area and near it, not just the closest one.
- Specific locations require specific strategies. Here are some.

Underground or in vessels

- Look for a second manhole or pit access way, and know the path to it in case of loss of power.
- Look for a removable panel or other opening that is not normally used but can be converted into an exit with some quick work.
- Wear extraction devices in case you cannot exit under your own

power. These devices allow a third party to pull you out, even if you are unconscious.

- Plan for survival or rescue in the case of a wall collapse. Let's say you are working in a pit and it's not shored up sufficiently. If it collapses on you, the location of the exit is irrelevant. What matters is how fast your coworkers can dig you out before you run out of air. If you have any warning at all that a wall is caving in, start moving away from it. Turn your back to it, raise your hands to cup your face and keep your elbows in at your sides. This maximizes the amount of air you have and helps you keep your head up.
- If you have been trapped, try to reach your radio or cell phone. You won't know up from down, but you can give a message that you are alive. Try to stay as calm



as possible and keep talking to a minimum. If you stay still, you will be less likely to further bury yourself. If you see light or hear sound, yell toward it and try to reach for it. Otherwise, stay still to conserve oxygen.

Overhead, platforms, mezzanines

- If a mezzanine has only one ladder or stairway going up to it, create an emergency exit of your own. You can do this, for example, by securing a rope ladder or other such device at a location not near the normal access ladder.
- If you are going into a ceiling area or attic, place a ladder at more than one opening. If there is only one opening, place a ladder at a known point where





Toolbox Talks

you can remove tiles or break through the ceiling by kicking out the drywall.

- If you are working in cable tray such that your body is actually in the tray and you are crawling around it, you will find it exceedingly difficult to back up to your exit in case of fire. Position a second or third ladder at a known point where you can move forward to make a fast exit.
- If you are working from a bucket, how would you get down if the operator below had a heart attack? Plan for this. Most buckets and other aerial lifts have occupant controls. If your equipment does not, you should have a backup operator either present

or just a short call away. If you depend on a call, ensure you have a call-in system that requires you to contact home base at distinct intervals. Contact your foreman to arrange this.

Fire requires specific strategies.

Here are two;

- You normally have a lighted exit path. But what if it's blocked by fire? You probably cannot see a different exit path from where you are. Know alternate exit paths and the location of multiple exits wherever you are.
- If there is only one exit, period, and you are in a high-risk situation for fire, you can adapt by having fire gear on hand. That would include an emergency



communication system, a fire suit, and a fire extinguisher. If you have just one exit, plan to fight your way out.

This Toolbox Talks article is reprinted with permission from 100 Safety Training Toolbox Talks for Electrical Construction Work, 2003, National Electrical Contractors Association (US). The complete set of 100 Toolbox Talks is available in Canada through the Canadian Electrical Contractors Association (CECA). Visit the CECA website at www.cecac.org to place your order or call 1-800-387-3226.



Precision Crafted Timers, Motors and Measuring Devices




Features:

- > Dual switch functionality
 - Light On or Off
 - Fan Time Delay: Pre-set ranges of 20, 40 and 60 minutes
- > Illuminated for locating in darkened areas
- > Package includes two overlay options; white and ivory

Benefits:

- > Eliminates the need for two switches
- > Reduces allergy causing bacteria and mold spore growth
- > Easy installation, fits standard opening for easy gangling
- > Commercial and residential ventilation and lighting solution

Call 877.6.TIMING (877.684.6464) or visit our web site at www.mhrhodes-cramer.com and click on "Time Switches" for more information.



M.H. Rhodes/Cramer Company 105 Nutmeg Road South, South Windsor, Connecticut, 06074, USA
MarkTime is a registered trademark of M.H. Rhodes/Cramer Company a division of Capewell Components, Co., LLC



Proud Supporters
CEAO

We help you enjoy the real benefits of life

You... your plan, your benefits, your needs - we're the company that puts you and your employees first by providing the advice, support and benefit services you need to offer a strong care foundation. Call today and experience the difference. Go to www.skipwith.ca to request a free quote.



Skipwith
we're with you

Barrie: 866-529-2988 Port Perry: 800-661-9023

Benefit & Pension Plans • Life Insurance • Dental Care • Group RRSP's • Extended Health Care



Volume 46 • Number 4
Fall 2008

The Ontario
ELECTRICAL ECAO
CONTRACTOR ELECTRICAL CONTRACTORS
ASSOCIATION OF ONTARIO

Index to Advertisers

Accubid Systems Ltd. 47 www.accubid.com	Electrical Safety Authority 9 www.esasafe.com	IBEW Construction Council of Ontario 11 www.ibewclo.org
Arlington 23 www.arlnew.com	Emcor Group-Comstock Canada 30 www.comstockcanada.com	Impulse Technologies Inc. 24 www.impulsetechonline.com
Boldstar Infrared Services Inc. 25 www.boldstarinfrared.com	Energy Efficiency Contractors Network 10 www.eecn.ca	InfraRed Imaging Solutions Inc. 14 www.iris maintenancesolutions.com
Canadian Standards Association 37 www.csa.ca	ESA Inc. 31 www.easypower.com	K-Tek Electro-Services Ltd. 36 www.k-line.ca
Carleton Electric Ltd. 32 www.carltonelectric.com	Federated Insurance Inside Back Cover www.federated.ca	Langille's Scrap & Cores 54 www.scrapandcores.com
Comverge Inc. Outside Back Cover www.comverge.com	Flir Systems Inc. 25 www.flir.com	Lizco Sales Inc. 4 www.lizcosales.com
Construction Safety Association of Ontario 26 www.csao.org	GE Consumer & Industrial – Electrical Distribution 13 www.ge-ed.ca	The Lyons Group 42 www.lyonsgroup.ca
Cristal Controls 42 www.cristalcontrols.com	George Brown College Inside Front Cover www.georgebrown.ca	Macleod Dixon LLP 40 www.macleoddixon.com
E.I. Dupont Canada Company 17 www.personalprotection.dupont.ca	Goodmans LLP 27 www.goodmans.ca	M.H Rhodes/Marktime & Cramer Company Divisions 52 www.mhrhodes.com

Millworks Manufacturing 15 www.millworksmfg.com	Port Perry Salvage 10 www.portperrysalvage.com	Synergy Energy Inc. 45 www.synergyenergyinc.com
MMM Group 32 www.mmm.ca	Robertson Electric Wholesale 12 www.robertson-electric.com	Thomas & Betts 7 www.thomas&betts.com
Moeller Electric Corp 33 www.moellerna.com	Royal Pipe Systems 19 www.royalpipe.com	Total Power Ltd 39 www.totalpowerltd.com
NOCOM 28 www.nocom.ca	R3&A Limited 35 www.r3alimited.com	Travelers Guarantee 24 www.travelersguarantee.com
Occupational Health and Safety 54 www.ecao.org/links_safety.html	Skipwith & Associates Insurance Agency Inc. 52 www.skipwith.ca	Underground Devices Inc 35 www.uddevices.com
Ontario Construction Secretariat 41 www.iciconstruction.com	Superior Flexible Conduits Inc. 54 www.superiorflex.com	United Wire & Cable 3 www.unitedwc.com
Pioneer Transformers 43 www.pioneertransformers.com		Wesco International Distributors 21 www.wesco.com



SUPERIOR
FLEXIBLE CONDUITS INC.

....your one stop shop for


- * custom extrusion
- * custom lengths
- * high temperature products
- * non metallic conduits
- * nylon conduits
- * CSA certified products
- * UL certified products
- * Accessories

AND MUCH MORE

we take pride in our
exceptional workmanship
and exemplary customer
service.

Phone (800)561-4216 / Fax (800)230-9753
rose@superiorflex.com / www.superiorflex.com

A COMMITMENT TO EXCELLENCE



• THE QUALITY CONNECTION

Richard (Rick) Mei
Representative

Box 2575
Sudbury, Ontario
P3A 4S9

Tel: 1-800-270-1475
Fax: (705) 560-9038
Cell: (705) 669-7112

**Occupational
Health and Safety**

CASH FOR SCRAP

Buyers of Wire, Transformers, Motors,
Copper, Aluminum, and Steel

Pick-up anywhere in Ontario

Langille's Scrap and Cores
150 Reach Industrial Park, Port Perry, Ontario L9L 1B2
Tel: (905) 985-6800 Fax: (905) 985-7993

www.scrapandcores.com

Some combinations just don't make sense.

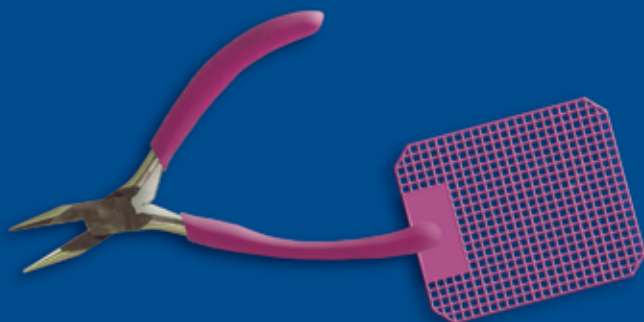


Exhibit A: "The Ply-Swatter"



Exhibit B: "The Cheese-Grating Hard Hat"

Some do.

ASSOCIATION ADVANTAGE

It's what you get when you cross the ECAO and Federated Insurance:
A complete risk management program unlike any you've seen before.

Finally, industry knowledge meets insurance expertise.

It's the Association Advantage for Electrical Contractors, and it's
exclusively available to ECAO members from Federated Insurance.

Check out ECAO.org or contact your
Federated Insurance representative to find out how
you can take advantage of the Association Advantage.



The energy to go clean.™



ZigBee® certified.  ZigBee®

Innovate AMI. Increase Reliability. Reduce Emissions.

Energy consumption concerns are on the rise, as is the demand for environmentally conscious energy. Comverge is leading the charge with innovative Clean Energy solutions. Select from Demand Response, energy efficiency, advanced metering, and grid management solutions to solve your energy demand challenges while doing your part to help protect the environment. Partner with Comverge and discover the "innovative" solutions for meeting growing demand. To learn how to achieve more with less, visit www.comverge.com or call 888.565.5525.

Come see us at Autovation® 2008, Atlanta, GA, Booth #711.

www.comverge.com | 888.565.5525

Thermostat manufactured in partnership with White-Rodgers. The Energy to Go Clean is a registered trademark of Comverge, Inc. All rights reserved. ZigBee is a registered trademark of ZigBee Alliance.