

Prompt Payment Legislation Occupational Health & Safety Change Solar PV Certification

The Voice of Ontario's ELECTRICAL CONTRACTING INDUSTRY

PM40063602

Comprehensive Technical Services

Ainsworth will help you improve the efficiency of your buildings and find the right solutions for all your infrastructure needs. We provide fast, reliable service, maintenance and installation for

- Chillers
- Air Conditioning & Heating
- Plumbing
- Electrical
- Motors & Motor Rewind
- Data Communication

Improve infrastructure efficiency using our solutions for

- Design Build
- Energy Services
- Power Systems
- Mechanical & Electrical Projects
- Facility Management
- Equipment Maintenance

Ainsworth has been taking care of customers and providing comprehensive technical services for more than 75 years.





24 Hour Emergency Service

1866 - GO ACTION (462-2846)



www.ainsworth.com

Toronto • Mississauga • Hamilton/Niagara • Cambridge • Vancouver • Calgary • Edmonton • Regina • Saskatoon

• Winnipeg • Halifax



This is no place to find out you're not wearing DuPont[™] Prote<u>ra</u>.

There's only one Protera® fibre, and it's made by DuPont. That's why electrical workers and the people who protect them insist on the genuine article. They know situations can change in a flash. DuPont™ Protera® gives your crew built-in protection that meets NFPA 70E Category 2 standards. The superior electric arc protection of garments made with Protera® can't be washed or worn away and offers better life-cycle value than FR-treated cotton or cotton/nylon blends. And Protera® garments were rated more comfortable in a double-blind test than FR-treated blends, so your people can focus on the task at hand. Surround your professionals with the material that's tested and proven by the thermal specialists and engineers who created DuPont™ Nomex®. Visit personalprotection.dupont.ca

The miracles of science

Ð



Copyright © 2010 DuPont. All rights reserved. The DuPont Oval Logo, DuPont[™], The miracles of science[™], Protera® and Nomex[®] are registered trademarks or trademarks of E. I. du Pont de Nemours and Company. DuPont Canada is a licensee.

ARE YOU BEING PROTECTED as per NFPA 70E? The Canadian standard is CSA-Z 462

The Canadian standard is

This Gate Must Be Locked At All Times

MittWorks

SWITCH TO MILLWORKS .. your safety is reflected in our garments

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

We've Got You Covered From Head to Toe

Meets ASTM 1506-02 for flame resistancy

TOLL FREE 1.877.285.6455

www.millworksmfg.com

IBEW Construction Council of Ontario

John Grimshaw - Executive Secretary-Treasurer Jack Dowding - Executive Chairman James Barry - President Bruce McNamara - Vice-President and Power Council President

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

IBEW CONSTRUCTION COUNCIL OF ONTARIO 209-61 International Blvd. Toronto ON M9W 6K4 tele: 416-674-6940

105 HAMILTON Lorne Newick, B.M. Vic Prohaska, Pres. tele: 905-387-1721

115 KINGSTON Bill Pearse, B.M. Guy Desaulniers, Pres. tele: 613-547-4115

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

303 ST. CATHARINES Peter Wall, B.M. Rob Wall, Pres. tele: 905-354-4303

353 TORONTO Steve Martin, B.M. Robert White, Pres. George Smith, Rec. Sec. tele: 416-510-3530

402 THUNDER BAY Glen Drewes, B.M. Gary McMahon, 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. Karl Lovett, Pres. tele: 519-948-2221

804 KITCHENER George Couch, B.M. Mark Watson, Pres. tele: 519-742-8319

894 OSHAWA Terry Dorgan, 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. Jeff Banks, Pres. tele: 705-734-9590

INTERNATIONAL OFFICE Phil Flemming, IVP tele: 905-564-5441



IPEX

NEW PRODUCTS FROM IPEX ELECTRICAL SYSTEMS

Round Floor Box and Stand



Simple yet innovative, the new Round Floor Box Stand is designed to raise the Round Floor Box off the concrete form allowing the ENT or conduit to enter the Box in a flat and straight path. Installed

together, the Floor Box and Stand accommodates the different rebar and posttensioned cable heights and slab depths found from job-site to job-site.

Sold as a kit, IPEX Electrical offers the Round Floor Box and Stand conveniently packaged together as one complete product offering.

SceptaCon™ PVC Conduit for HDD



If you're running electrical and telecommunication cable conduit under a busy road or highway, then you need SceptaCon[™]. SceptaCon Links

seamlessly to existing PVC conduit infrastructure and allows utilities to standardize on PVC throughout their entire electrical system. And because SceptaCon is made to the same high standards as our Scepter Rigid PVC Conduit, contractors and electrical utilities can be assured of the same level of quality - above ground and below.



Scepter[®] F-Series double gang boxes, weatherproof covers and cover plates have all been re-designed. The new FSU boxes and covers can be used with any industry standard double gang box or cover and feature:

Universal product compatibility

Cost savings for the contractor

Greater ease and flexibility on the jobsite

CSA certification



Save Time & Money w/ Kwikon® **Concrete Wall Boxes**



Kwikon® Single Gang Concrete Wall Boxes offer a fully assembled, PVC alternative for installing boxes in poured-in-place

concrete walls. Featuring a concrete-tight poly film covering the box opening and integral hubs, the Concrete Wall Box eliminates the time-consuming wrapping and taping work associated with traditional metal boxes. The non-metallic, non-conductive and non-corroding boxes arrive at the jobsite ready to install saving you time and money!

ENT Support for Concrete Slab Construction



Perfect for use in high-rise, posttensioned buildings, the new ENT Support Unit (ESU) raises the tubing or conduit up off the

concrete form to maintain a level raceway during the concrete pour. With its minimal surface contact, the ESU allows for maximum aggregate flow and concrete consolidation. Constructed with an easy locking mechanism for any 1/2" to 2" sized ENT, the ESU saves installation time and labour compared to using traditional tie wire. The plastic material also eliminates corrosion on exposed surfaces.

EPR Kit Adapters make Duct repairs quick and easy!



New Adapters for our EPR Conduit Repair Kits allow contractors to repair a broken section of DB-II duct while leaving the cables

inside and restoring the duct to its original form. The pre-cut adapters easily open around existing cabling to make repairs quickly and effectively, reducing end-user downtime and complaints, and saving contractors time, labour and money.

For more information call Toll Free: 1-866-473-9462

or visit www.ipexelectrical.com

Products manufactured by IPEX Electrical Inc. Kwikon[®] and SceptaCon[™] are trademarks of IPEX Branding Inc.



Volume 49 • Number 4 • Fall 2011

Presidents Remarks	8
A Jurisdictional Overview of Prompt Payment Legislation in the U.S.	10
OHS & Workers' Compensation Management Update .	14
Industry Briefs	18
New Products	20
Toolbox Talks	23
Technology Tip	24
Temporary Heating	26
Injury Prevention Tips: Hand Tools	28
CFAE Corner	28
Quarterly Financial Statistics	30
Case Study – Work Reintegration	31
Calling All Student Writers	31
Quikcare Connect	32
Data Cable: Why Category Cable Runs the World	34
The Immortal CEO	36
CSA Standards and NETCO Launch Personnel Certification Program for Electricians	
Installing Solar Photovoltaic (PV) Systems	38
Electric Hook-ups	40



Advertisers Index

On The Cover: Canada's first 500 kW rooftop solar project, at the City of Kitchener Consolidated Works Yard, designed and installed by John Raepple Electric Ltd.





170 Attwell Drive, Suite 460, Toronto, Ontario M9W 5Z5 Tel: 416-675-3226 Fax: 416-675-7736 1-800-387-ECA0 (3226) email: ecao@ecao.org Web: www.ecao.org

ECAO EXECUTIVE COMMITTEE

President: Jim Kellett, K-Line Maintenance & Construction Limited, Stouffville

Past-President: John Raepple, John Raepple Electric Ltd., Cambridge

First Vice-President: Dan Lancia, Holaco Installations Limited, Hamilton

Second Vice-President: John Salmon, A. R. Milne Electric Ltd. Treasurer: Bill McKee,

Carleton Electric Ltd., Nepean Director: Dave Mason.

D. J. Mason Electric Co. Ltd., Hamilton 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

> > Editor Ali Mintenko

Sales Executives Nolan Ackman, Gord Jackson,

Jack Smith, David Tetlock
Production Team Leader

Adrienne N. Wilson

Graphic Design/Directory Specialist Krista Zimmermann

Published by:



5255 Yonge Street, Suite 1000 Toronto, ON M2N 6P4 1-866-216-0860 ext.229 Email: robertt@mediaedge.ca

531 Marion Street Winnipeg, MB R2J 0J9 1-866-201-3096 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

The President's Remarks



The President's Remarks Prompt Payment Legislation

Jim Kellett

In these "Remarks" I want to do something different than describe this edition of the *Ontario Electrical Contractor*. I want to educate you and sell you on a great idea and hopefully get your support to achieve it. That idea is Prompt Payment Legislation (PPL). What is it? Simply legislation which mandates regular timely payment for construction work performed and remedies like interest penalties or legal work stoppage if not paid.

The ECAO is a member and the manager of the Canadian Electrical Contractors Association (CECA), which in turn is a founding member of the National Trade Contractors Coalition of Canada (NTCCC). Through this network of relationships we are able to provide comprehensive and independent representation of trade contractor issues at all jurisdictional levels. The primary interest of these organizations is to promote improvements to the payment system in construction to the benefit, firstly, of trade contractors, but also for the entire construction contracting chain.

Over the past couple of years the focus has become more precise, targeting on the promotion of CCA/CCDC standard contracts, documents and guides, and the enactment of prompt payment legislation similar to other jurisdictions such as the U.K., Australia and the USA. [See David Zurawel's article about PPL in the USA on page 10]. Now these two objectives are merged together as it becomes clear to us that promotion of standard contracts and prompt payment are not just complementary...they are the same.

In Ontario the NTCCC in partnership with the Council of Ontario Construction Associations (COCA) lobbied the provincial political parties about prompt payment throughout the year running up to the October 6th election. The first significant breakthrough came in June 2011 with the introduction of a private member's bill by Liberal MPP Dave Levac on the last day of the legislature prior to the election. The Bill was based on similar American legislation and was entitled *"An Act to protect contractors by requiring prompt payment of construction contracts."* While it's true the Bill died on the order paper, four things got accomplished:

- Legislated prompt payment provisions for construction became a realistic objective;
- All three political parties announced their support for prompt payment for construction during the course of the election campaign;

- The trade press and other construction associations like the Canadian Construction Association (CCA) and the Ontario General Contractors Association (OGCA) became actively engaged in the prompt payment debate and dialogue;
- The trade contractor community recognized that legislated prompt payment must be consistent with the CCA/CCDC standard contracts, both prime and subcontract, to gain full industry support.

During the summer, the impetus from Dave Levac's private members bill brought the general and trade contractors together in an agreement to achieve prompt payment legislation which would meet the interests of both generals and subs and would be consistent with CCA/CCDC standard contracts. The job of drafting that document was assigned to the Canadian Electrical Contractors Association (and ECAO) who retained Geza Banfai of Heenan Blaikie LLP and also of the CCDC.

After a number of drafts, focus groups and revisions, the draft PPL was approved by the NTCCC on October 5 and turned over to the OGCA for their review and comment. Official endorsement from the OGCA followed 3 weeks later.

The NTCCC has since visited most provinces delivering their prompt payment message and receiving strong support from the trade contractor communities there. In some instances the meetings prompted the establishment of provincial trade contractor coalitions similar to NTCCC. It seems the national dialogue has begun.

At the time of writing these "Remarks", the Ontario construction industry is on the verge of launching a full on campaign to make prompt payment a legislated reality. This is ground breaking on so many levels. It validates the importance and relevance of standard documents, guides and best practices to the real world; it defines trade contractors as a significant, independent force in construction; and, it provides an opportunity for the entire industry to work as a unit for the benefit of all constituents.

ECAO is completely committed to the enactment of prompt payment legislation in Ontario and looks to each electrical contractor, member or not, for their support.



Revolutionary.





Done

Introducing the latest teck fitting revolution! STAR TECK EXTREME DIRECTOR" - the first truly adjustable, rangetaking teck fitting for termination applications requiring angle adjustments.

- Adjusts from 90 to 180 degrees
 Trouble-free cable insertion
 Requires no disassembly

- Can be easily disconnected once installed
- Reduces installation time by up to 50%*
 *Compared to 90-degree elbow and LB conduit body installation.
 NEMA Type 4, 4X

What's more, like all STAR TECK[®] fittings, the STAR TECK EXTREME DIRECTOR[®] fitting is manufactured in Canada for Canada. Be a part of the revolution! Check out the STED[®] for yourself at your local electrical distributor.





A Jurisdictional Overview of Prompt Payment Legislation in the United States

Prepared for the National Trade Contractors Coalition of Canada (NTCCC) by the Council of Ontario Construction Associations (COCA), August, 2011.

Executive Summary

• Despite ongoing fundamental differences, the American general, sub and specialty contractor community have collectively recognized the importance and benefits of a prompt payment culture for construction.

• The broader construction industry in the United States recognizes three fundamental principles for prompt payment:



- 1. prompt payment for all sums due is the correct and only posture for the industry to maintain;
- 2. contractors should take steps, including legislative action when appropriate, to protect their interests and the interests of their subcontractors and suppliers; and

3. owners should be willing to demonstrate their ability to pay.

- As of July 2011, every state in the union, save for New Hampshire, has enacted prompt payment legislation for public construction projects.
- Approximately one-third of U.S. states have enacted prompt payment for private contracts, with the trend forecasting more states to pass similar legislation in the coming years.
- The U.S. Federal Prompt Payment Act serves as a template for each state's own legislation.
- All states' prompt payment legislation reflects the same fundamental themes and intent as the federal law.

Basis for contractor support for prompt payment legislation in the United States

The American general contracting community has come to recognize the importance and benefit of prompt payment to the broader construction industry. There is a firm commitment to prompt payment by the general contracting community and the federal and state levels, primarily conducting its advocacy efforts through the Associated General Contractors of America (AGC of America).

Working with the American Subcontractors Association, Inc. (ASA) and the Associated Specialty Contractors (ASC), the three groups have at least two common goals:

- more efficient, timely and economical construction for the mutual benefit of owners, architect/engineers, contractors, subcontractors and suppliers; and
- 2. equitable and ethical relations between general contractors and subcontractors.

The three associations have developed a series of guidelines and forms reflecting construction practices that are fair and equitable to owners, general contractors and subcontractors.

Summary of status of prompt payment legislation in the United States (July 2011)

- Every state in the union but New Hampshire has enacted prompt payment legislation for public construction projects.
- Approximately one-third of the states have enacted similar prompt payment legislation for private projects.
- Basically, the U.S. *Federal Prompt Payment Act* requires the project owner/ government to pay the general contractor within 14 days of a payment application being submitted.
- If the payment application is for final payment on the project, it is due 30 days after final acceptance by the owner and submittal of the final invoice.
- Additionally, the *Federal Prompt Payment Act* requires payments be made to first-tier subcontractors within seven days following receipt of payment by the general contractor from the owner.
- While individual states' prompt payment acts differ from the *Federal Prompt Payment Act* and from each other in certain respects, all of these statutory schemes follow the same general pattern and represent the same fundamental intent.
- The owner's (or, in the case when payment is due to a subcontractor, the general contractor's) failure to pay in accordance with the applicable prompt payment act is deemed a breach of contract. One of the clearest examples of material breach is when an owner has failed to pay a

progress draw to a contractor.

- A party's breach of prompt payment legislation is tantamount to a breach of the bonded contract, which causes that party to lose all contract rights against the non-breaching contractor/principal and to lose all bond rights against the surety.
- American states have nearly unanimously followed the federal government's lead and used the *Federal Prompt*

Payment Act as a template for their public construction.

- The trend is growing in American states to enact prompt payment acts for nonpublic or private construction. Massachusetts only recently passed a prompt payment act for private construction projects. A number of states still do not have prompt payment acts for their private construction projects, including:
- Colorado



When Sam Eckler helped local clothing workers and manufacturers establish the first multi-employer pension plan in Canada, he was on to something. Today, multi-employer plans cover over one million Canadians – with Eckler Ltd. at the forefront of the industry.

Our professionals combine their insight into the issues facing trustees and members, with technical excellence and progressive practices. The result is inspired solutions for today's trustees and administrators.



www.eckler.ca

pensions group benefits communications investment consulting technology administration

A MEMBER OF ABELICA GLOBAL

JURISDICTIONAL OVERVIEW

- West Virginia
- Indiana
- South Dakota
- Iowa • Oklahoma
- Michigan
- New Hampshire
- Virginia
- Washington
- More states are anticipated to adopt prompt pay statutes for private projects in coming years.

- States have used the *Federal Prompt Payment Act* as a template for their own legislation.
- As such, requirements and deadlines in these various acts differ from state to state.
- States' acts however, all follow common main themes:
 - 1. General contractors are entitled to payment within a certain number of



EVERYTHING YOU NEED TO GET THE JOB DONE

- Equipment Locations Throughout Canada
- Nationwide Service and Repair Network
- High Selection of Late Model Units
- Immediate Equipment Availability
- Flexible Rent or Rent to Purchase Options



Commercial Equipment Corp. is an authorized distributor for Nesco, LLC.

days after the application for payment is submitted. (The number of days for payment ranges from five to 30, depending on the state. Most common is payment between 15 and 30 days after receipt of invoice. In virtually all cases, the time period stipulates so much time for approval with the balance of time for payment.)

- 2. If project owners dispute all or part of a payment application, they must object in writing, quantify the amount disputed and pay the undisputed amount to the general contractor.
- 3. The general contractor must pay its first-tier subcontractors within a certain number of days of receipt of payment from the owner. This time period is typically shorter than that stipulated for the owner to pay the general contractor. If the general contractor disputes a subcontractor's payment application, it must object in writing, quantify the amount disputed and pay the undisputed amount to the subcontractor.
- 4. In the event that the owner or general contractor does not object to a payment application in a timely fashion, the application is deemed admitted and failure to timely pay is a breach of contract by the owner or general contractor.
- 5. Some states have expanded their prompt payment acts to also address change order requests. In such cases, an owner's failure to timely respond to a contractor's properly submitted request for a change order results in the change order being incorporated into the contract.
- 6. Usually, these prompt payment acts provide that their statutory terms are implied to be incorporated into contracts entered into in that particular jurisdiction, and cannot be changed by the parties unless allowed by the act.

David Zurawel is vice-president of policy and government relations at the Council of Ontario Construction Associations and can be reached at dzurawel@coca.on.ca.

View Our Full Inventory Online

CABLE BUS SYSTEM The Most Technically Advanced Electrical Power Delivery System

- Free Air Ampacity Rating
 in ABOVE and BELOW GROUND Installations
- + Up to 8000 AMP / 600 V to 230 kV

- Reduced Power Losses
- Lowest Cost System
- Suppresses EMF's
- Expandable Enclosure
- Easy & Quick Installation
- Underwater Installations





Patent Pending



Replaces BUS DUCT, ARMOURED CABLE IN TRAY, UNDERGROUND DUCT BANK, DIRECT BURIED and CONDUIT SYSTEMS

United Wire & Cable's expertise in cable and enclosure design, manufacture and application engineering ensures a reliable, versatile and cost effective MAXIAMP cable bus system.

For further information please email us at: **sales@unitedwc.com** Tel: (905) 771-0099 or 1-800-265-8697 • Fax: (905) 771-1658 or 1 800-461-4689 • www.unitedwc.com

Going to great lengths to serve you



OHS & Workers Compensation Management Update

Charting OHS Change in Ontario: From Dean Panel to Bill 160, and Beyond

In early December 2010 the report of the Expert Advisory Panel on Occupational Health and Safety (Dean Panel) set out fortysix detailed recommendations to change the OHS system in Ontario. In June 2011, Bill 160 was passed to implement many of the Dean Panel recommendations. Bill 160 became law rather quickly following the Dean Panel Report, and it left many Ontario employers wondering what Dean Panel recommendations made it into Bill 160, what was left out, and what is yet to come. This article provides an update and a chart tracking the status of OHS change in Ontario with reference to the Dean Panel Report and the Bill 160 amendments. [Editor's Note: The above-mentioned chart is not included in this reprint but is available from www.heenan.ca.]

The Ontario Ministry of Labour (MOL) immediately indicated its commitment to adopt the Dean Panel's recommendations, and promptly established an implementation team consisting of its own personnel, members from the Workplace Safety and Insurance Board (WSIB), and members of existing health and safety associations. Yet, Bill 160 is just the beginning. Implementing all of the recommendations requires the development of numerous new regulations, operational policies, procedures, and infrastructure at the MOL. Full implementation of all the changes residing in Bill 160 may still require further changes to the *Occupational Health and Safety Act* (OHSA) and *Workplace Safety and Insurance Act* (WSIA).

At a high level, Bill 160 creates the structures and framework necessary to implement the vast and varied recommendations of the Dean Panel – whether they are contained in Bill 160 or await implementation through future legislation or other means.

1. NEW PREVENTION ORGANIZATION, CHIEF PREVENTION OFFICER, AND PREVENTION COUNCIL

The Bill 160 amendments created a significant role for a new Chief Prevention Officer, appointed by the Minister of Labour, who is supported by the new Prevention Council in carrying out a broad new set of duties mandated under the OHSA. In August 2011, George Gritziotis was appointed as Ontario's first Chief Prevention Officer. Mr. Gritziotis previously served as the founding executive director of the Construction Sector Council. Mr. Gritziotis assumed his new role as Chief Prevention Officer on October 17, 2011.

Bill 160 also created provisions for a new Prevention Council, comprised of employers, representatives of trade unions and provincial labour organizations, non-unionized workers, the WSIB, and other OHS experts. Provisions relating to the Prevention Council and Chief Prevention Officer became law when Bill 160 received Royal Assent on June 1, 2011.

An Interim Prevention Council is in place. We are still awaiting word on the composition of the Prevention Council. Employer representation is still required. It is expected that the Council will select a Chair. The Chair is not assigned any specific powers by the Bill but is the individual who will communicate on behalf of the Council to the Chief Prevention Officer and the Minister of Labour. The role of the new Chief Prevention Officer and Prevention Council appears largely advisory in nature. We do, however, expect that each will be influential because, by April 1, 2012, the Minister of Labour will be required to consider the advice received pursuant to the OHSA. Their key functions involve advising the Minister of Labour about preventing work-related injuries and illnesses, provincial occupational health and safety strategy, and

any other matters specified by the Minister of Labour.

The Dean Panel Report contained a recommendation that the Council should be charged with creating a multi-year social awareness strategy directed at reducing public tolerance of workplace injuries, illnesses and fatalities. Under the Bill 160 amendments, that duty rests with the Minister of Labour. However, the Minister is empowered to delegate the power to an employee of the Ministry such as the Chief Prevention Officer who can, in turn, seek advice from the Council. We anticipate that the Minister, the Chief Prevention Officer, and the Prevention Council will largely form the direction of future health and safety strategy in the province of Ontario.

2. SHIFTING PREVENTION MANDATE TO MINISTRY OF LABOUR

Bill 160 added provisions to the OHSA specifying that the Minister of Labour will now be responsible for preventing work-related injuries and illnesses. These provisions will become law no later than April 2012. This is currently creating some confusion for stakeholders, as the transfer of authority and programs is starting to take place but the provisions await proclamation. The Minister will have express powers to:

- as noted above, promote public awareness of occupational health and safety;
- educate employers and others about occupational health and safety;
- foster commitment to occupational health and safety among employers, workers and others; and
- make grants to support occupational health and safety, which would include funding research.

Part 2 of the WSIA, the provisions related to Injury and Disease Prevention, have been repealed. Those functions are to be transferred to the Minister of Labour, who will now have the power to create "Designated Entities", which will include safe workplace associations, training centres, or medical clinics specializing in occupational health and safety. In short, the Minister of Labour and not the WSIB now sets the standards for these organizations. All existing safe workplace associations, clinics and training centres are expected to be retained.

3. MANDATORY TRAINING FOR WORKERS AND HEALTH AND SAFETY REPRESENTATIVES

(a) Setting of Training Standards and Recommended New Worker, Supervisor Fall Protection Training

The Bill 160 amendments permit the Minister of Labour to establish standards for training programs, and to approve programs that meet those standards. They also empower the Minister to collect information regarding a worker's completion of an approved training program, and permits the Minister, with a worker's consent, to disclose such information to anyone – including current or potential employers. In short, the MOL may become a repository for information about specific training a worker has received which can be accessed by workers and employers. This could lead to greater access to the existing training status of a particular worker.

The Dean Panel recommended mandatory health and safety awareness training for all workers and supervisors responsible for frontline staff. It was recommended that such training include health and safety rights and responsibilities; the role of health and safety authorities, the MOL, and the WSIB; hazard recognition, control and elimination; Workplace Hazardous Materials Information Systems (WHMIS); and other elements. Mandatory training on high risk issues, starting with fall protection training, was recommended. All standards and content for the proposed mandatory health and safety training (free mandatory entry training for workers, free mandatory entry training for supervisors, mandatory construction worker training, and mandatory fall protection training) will be set by the MOL - through the Chief Prevention Officer. The MOL is currently developing all of this training, but regulatory change and perhaps further OHSA amendments will be required beyond the Bill 160 amendments. Given that this training will be made available in multiple languages and delivery formats, the current "best guess" from the MOL is that the recommended training will be available in 18 to 24 months.

The MOL is considering mandatory fall protection training in all sectors, starting with construction. Existing training that meets the new standards is expected to be recognized under equivalency provisions. The provisions relating to the authority over training all became law on receipt of Royal Assent on June 1, 2011. However there are no provisions, as yet, requiring employers or constructors to provide specific additional training pending development of training programs and legislative change.

Bill 160 also provides for a change in the authority over certification training for Joint Health and Safety Committee (JHSC) members. As with Designated Entities, this responsibility is in the process of being transferred from the WSIB to the Ministry of Labour. All standards for training or other requirements for becoming a certified member of a JHSC, and the power to certify a person meeting the requirements, will rest with the MOL, through the Chief Prevention Officer, on or before April 1, 2012.

(b) Health and Safety Representative Training



OHS & WORKERS' COMPENSATION

A priority recommendation was a new requirement that health and safety representatives receive training. Previously, the OHSA did not impose an obligation to train a health and safety representative, required at Ontario workplaces where the number of workers is regularly between six and nineteen. Bill 160 amended section 8 of the OHSA to require a constructor or employer to ensure that a health and safety representative receives training to enable him or her to effectively exercise the powers and perform the duties of a health and safety representative. The Bill 160 amendments state that this training shall meet such requirements as may be promulgated in supporting regulations.

Provisions relating to this mandatory training have been passed but not yet proclaimed in force. Unlike some of the amendments mentioned above, these provisions will not come into force until proclaimed. The standards have not yet been set. The training required may well be "certification light", i.e. something less than is required for certified members of a JHSC.

4. NEW AUTHORITY FOR JHSC CO-CHAIRS

Bill 160 amended section 9 of the OHSA to permit a single Co- Chair of a JHSC to submit written recommendations directly to the employer or constructor. Previously, the OHSA gave the power to make recommendations to the JHSC as a whole. The amended section 9 OHSA states that, if the JHSC has failed to reach consensus about making a recommendation after attempting in good faith to do so, either Co-Chair of the committee is permitted to make a recommendation. Employers and constructors have the same obligation to respond to a recommendation from an individual Co-Chair, as existed for recommendations from the entire JHSC. These provisions have been passed and will be proclaimed in force no later than April 1, 2012.

5. REPRISALS

The Dean Panel expressed concern respecting the manner in which reprisal complaints, made under Section 50 of the OHSA, were handled. Its report identified that reprisal complaints, which allege retaliation for seeking the enforcement of rights and obligations under the OHSA, are not prosecuted by the MOL and that non-union workers have difficulty navigating the complaint process. Bill 160 added a number of provisions to the OHSA in an attempt to remedy this concern. The new Section 50.1 designates the Office of the Worker Advisor as a body to provide support services to non-union workers in respect of a reprisal complaint. The Office of the Employer Advisor is designated as a body to provide support services to employers with fewer than one hundred workers (or another threshold that may be prescribed), who are responding to a reprisal allegation.

Most importantly, a new and additional mechanism for commencing a reprisal complaint has been created. Under the Bill 160 amendments, a MOL inspector can refer a matter of an alleged reprisal directly to the Ontario Labour Relations Board (the "Board"). The Board Rules requiring a response to a complaint would be triggered upon such a referral. However, before a matter can be referred directly to the Board, a number of conditions have to be met: the involved worker must consent to the referral, a policy respecting reprisal referrals must be established by the Board and MOL, and the alleged reprisal cannot already be the subject of a complaint to the Board or have been arbitrated under a collective agreement. Policies are currently being developed. We understand that the Board's expectation will likely be that a referral from a MOL inspector contain all information currently required in a reprisal complaint filed by a worker.

Under the Bill 160 amendments, it appears that, as before, MOL inspectors will have virtually no role or function in the determination of the referred reprisal complaint. The inspector is not a competent or compellable witness in the proceeding meaning the inspector cannot testify. Although the MOL inspector may have a role in referring a complaint, it still appears that the worker is responsible for representing themselves or obtaining advice and assistance from the Office of the Worker Advisor.

Employers should take note of the changes involving reprisal complaints for a few reasons. First, the reverse onus, requiring the employer to prove that a reprisal did not occur, will continue. Second, under the Bill 160 amendments the decision of a MOL inspector to refer a complaint is not one that can be appealed, meaning that once the referral is made, the employer will have to respond to the allegations without the ability to challenge the inspector's decision to make the referral. These Bill 160 provisions have been passed, but not have yet been proclaimed in force. This is another set of amendments that do not automatically come into force and will not be operative until proclaimed.

6. CODES OF PRACTICE

Bill 160 amended the OHSA provisions relating to Codes of Practice to facilitate their development. The provisions of section 32 of the OHSA provide that the Minister of Labour may approve a Code of Practice and the approved Code of Practice could be followed to comply with the legal requirement. Further, Bill 160 amended the OHSA to provide that failing to follow an approved Code of Practice is not, in itself, a violation of the legal requirement for which the Code was approved. Codes of Practice have been widespread in jurisdictions beyond Ontario and provisions already existed in the OHSA for development of such Codes.. Presumably, the intent of this change is to encourage greater use of more prescriptive Codes of Practice to guide employers and constructors on meeting the general performance based standards in the regulations. These provisions were passed in June 2011. There is still no word from the Ontario MOL on planned Codes of Practice.

7. MORE TO COME- WHAT WE DID NOT SEE IN THE BILL 160 AMENDMENTS

While much was said about creating greater protection for categories of workers identified as vulnerable, including workers in farming, construction, and the temporary staffing industry, Bill 160 did not, in and of itself, further those protections. Specific steps recommended in the Dean Panel Report such as new OHS posters explaining rights and responsibilities of workplace parties, how to contact a MOL inspector, and the specifics of more frequent proactive inspections and enforcement campaigns at workplaces in sectors where vulnerable workers are concentrated, did not appear in the Bill. These recommended steps still have to await guidance from the MOL and its policies on administering and enforcing the OHSA.

Similarly, the Dean Panel also made numerous specific recommendations for tackling the underground economy in the construction industry. Its recommendations included electronic registrations of subcontractors at construction projects, posting of Notices of Project, and proactive inspections by MOL inspectors on evenings and weekends. Any developments in this regard will also have to await MOL changes to administration and enforcement of the OHSA - though we understand the MOL is preparing to regularly conduct enforcement activities outside of normal working hours.

Bill 160 confirmed the Ontario Government's commitment to implementing the Dean Panel recommendations. The amendments generally focused on establishing the institutions of the new health and safety regime, permitting the setting of prescribed training standards, and addressing reprisal complaints. Employers should anticipate further and more significant changes as the Prevention Council and Chief Prevention Officer roles become operative, once enforcement strategy is created, and once any and all supporting regulations are created. We

will continue to keep readers up to date on changes.

Cheryl A. Edwards, a former Ontario Occupational Health and Safety (OHS) Prosecutor, is a Partner in Heenan Blaikie LLP's Labour and Employment Group and Lead in the firm's national OHS & Workers' Compensation Practice Group. Cheryl has more than 20 years of experience providing strategic, focused and practical advice and training to public and private sector organizations. She also has extensive experience representing employers, constructors, supervisors and officers and directors at trials, complaints, inquests and appeals. Cheryl has been recognized as one of the best OHS and Workplace Safety and Insurance Board lawyers in Canada on the National Post "Best Lawyers in Canada" list, and as a leading Canadian occupational health and safety practitioner by Lexpert for over 15 years. Cheryl can be contacted by email at cedwards@heenan.ca or by telephone at (416) 360.2897.

Jeremy Warning is a Partner in Heenan Blaikie LLP's Labour and Employment

Group and a member of the firm's national OHS & Workers' Compensation Practice Group. Prior to joining the firm, Jeremy spent more than seven years prosecuting charges under the Occupational Health and Safety Act for the Ontario Ministry of Labour. Jeremy now provides advice and representation to employers and management in occupational health and safety matters. Jeremy is also a co-author of the Annotated Occupational Health and Safety Act, a leading text used by lawyers, human resource and health and safety professionals. Jeremy may be contacted by email at jwarning@heenan. ca or by telephone at (416) 643.6946

Samantha Seabrook is an Associate in Heenan Blaikie LLP's Labour and Employment Group and a member of the firm's national OHS & Workers' Compensation Practice Group. Samantha joined Heenan Blaikie in 2011 after articling with the firm. Samantha may be contacted by email at sseabrook@heenan.ca or by telephone at (416) 777.4176.

AHEAD OF THE CURVE

ÖLFLEX® TRAY II flexibility equals savings for you

Pull more cables at a time

- Route faster and easier in tr
 Excellent flexibility in cold te

Scan, click, or call. www.lappcanada.com 877-799-5277



Get the free mobile app at http://gettag.mobi

INDUSTRY BRIEFS

ECAO Announces 2011 Scholarship Award Winners

Congratulations to Matthew Huisman in Jordan Station, Ontario and Maxwell Howard in Niagara Falls, Ontario.



Matthew Huisman, son of Mark Huisman from E.S. Fox Ltd., continues his studies at Mohawk College to become a building renovations technician. His plan is to learn as much as he can so that he will have more experience in his field, in the hopes of owning his own building and renovation business.



Maxwell Howard, son of Chris Howard, also from E.S. Fox Ltd., is attending his first year at Cambrian College in Sudbury, Ontario, studying Electrical Engineering Technology. He has a strong desire to work in the electrical field and will be the fourth generation in his family to do so.

The winners will each receive \$2,000 to put towards their college educations. ECAO would like to thank its scholarship committee for their dedication and would also like to thank all those who applied this year—we wish you luck in your future endeavours!

ECACO and IBEW, L.U. 804 Complete Solar Training Centre in Kitchener, ON



The Electrical Contractors Association of Central Ontario(ECACO) and the International Brotherhood of Electrical Workers (IBEW), Local Union 804 through the Joint Apprentice and Training Committee, have completed a solar PV renewable energy training centre in Kitchener, Ontario. The partners received an Ontario Skills Training Enhancement Program grant from the Government of Ontario to assist in the development of this exciting facility.



A dual-axis tracker located on the facility's front lawn on Victoria Street was installed by John Raepple Electric Ltd.; a ground mount system was installed by Paul Reitzel Electric; and GreenWave and a single axis system were installed by Red Electric Ltd. at the rear of the facility.

The partners have completed the training program development and have since trained over 100 IBEW members, with many more being trained this fall. Also invited to participate in the training program are local high school students, who will get an opportunity to understand these state-of-the-art energy systems and spark an interest in the electrical trade through the IBEW.

The focus will be on the various systems available and how they



function in real-world applications, as well as on the safety aspects of solar systems, including handling and installation.

The microFIT Feed-in Tariff (FIT) Program will allow homeowners and commercial businesses to produce electricity and sell it back to the grid at 80.2 cents per kilowatt.

The ECACO and IBEW, L.U. 804 are very proud of this installation and look forward to leading the way for the challenges of a green Ontario, as well as training and certifying electricians for the Construction Electrician (NOC 7241) Solar Photovoltaic Systems Certification (SPVC).



New Products & Services



Extech Introduces HDV600 High-Definition VideoScope Series

Extech Instruments, which produces handheld test and measurement tools, recently announced the launch of its new HDV600 series of High Definition VideoScope Inspection Cameras. These waterproof and drop-proof industrial videoscopes deliver images and video with sharpness and clarity regardless of job site conditions.

The HDV600 main display unit's large LCD monitor with 640x480 resolution is easy to view in outdoor sites, poorly lit industrial spaces or aircraft maintenance facilities. Its SD memory capacity includes 15,000 image/four-hour video capacity and audio annotations help eliminate manual note-taking.

No two jobs are alike and Extech meets this challenge with both macro and long depth of field camera tips in diameters ranging from four to six millimetres. Macro optics are ideal for up-close inspections, while long depth of field optics are suited for viewing larger or longer concealed areas. All HDV600 camera tips are also equipped with adjustable LED lighting.

Users can select from a number of semi-rigid, flexible and longlength-fibreglass scopes that connect to the display unit. Scope handsets are also available, with wired connections to the main unit and wireless models for inspections up to 10 metres away.

Articulated controller handsets feature 320° articulated sixmillimetre scopes and a large, glove-friendly articulation control knob with adjustable resistance, helping simplify inspections of detail-intensive equipment.

To learn more or to find a distributor, visit www.extech.com/hdv600.

RELIABLE HANGING SUPPORT UP TO 100 LBS

∕∕IRE GRABBER

Get reliable hanging support for fixtures, fixture boxes, cable tray and other static 100 loads requiring drop wire support! Better than traditional wire-hanging methods, Wire Grabber" saves time; costs a lot less than competitive products. FLG3 Hold on braided wire is unaffected by oil or grease...holds a static load Whe Gabber Y MUS up to 100 lbs, including high bay light fixtures - in dry or wet locations · Tightening the screw engages six points of gripping contact on wire - there's no internal spring Easy length adjustment with screwdriver :(UL)u Connector ships fully assembled FITS Single with loop, or "Ys" with toggles or hooks - with .080" braided wire in lengths from 5 to 30 ft. (Bulk wire also available) 800/233-4717 • www.aifittings.com rlington 02011 Adjuston Industries Inc. View Video DEST TOTA E RANGES! ASIEST CABLE INSERTION

.895 to 1.110 dia.

Patented

Arlington's 3810AST and 4010AST series. and now the NEW, LARGER SNAP²IT[®] fittings: 5010AST, 505010AST, 7510AST are the easiest to insert snap-on connectors. And they handle the videst total cable ranges for MC cable; 14/2 to 3/3!

- · Easiest cable insertion
- Widest variety of cables Listed for Southwire's new ACPOAC onbie - also AC, MC, HCF, MC continuous corrugated aluminum cable and MCI-A steel and aluminum cables.
- Super-secure installation No pullout!
- (UL (SP Easy to remove, reuse

C3006-2011 Arlington Industries.

· Fully assembled, ready to use

Easy SNAP-IN installat NO TOOLS



800/233-4717 • www.ailittings.com

gton

IN CONVENIENT KITS for FIXTURES and more

IT'S YOUR MESSAGE.







en years ago, Kevin Brown and I decided to use our 30 years of experience in the association publishing field 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 Vancouver 1.604.739.2115 Gainesville 1.877.234.1863

S J В \mathbf{P} Ι J Ŧ www.mediaedgepublishing.com

Toolbox Talks

039: HARDHATS

When to wear

Wear your hardhat any time you are on the job site, other than in an office or trailer.

Types and classes of hardhats

Type I hats reduce impact from a blow to the top of the head.

Type II hats reduce impact from a wider range of blows.

Class C hats provide no electrical protection.

Class E hats provide protection from high voltage, and are proof-tested to 2200V.

What the hard hat does for you

Your hardhat helps identify you, thus improving security for everyone.

It provides some protections from falling objects, arcs, and objects your head might strike in close quarters. Your hat protects you from impact only if you have not altered the suspension system by placing things (other than a cold weather liner) between the suspension and the shell. Ensure your suspension isn't so loose it wobbles and not so tight it pinches your skin.

It is mechanically protective to the extent you have maintained the shell integrity. This means you cannot drill holes into it or alter the shell in any way. The solvents in paint can weaken the hat. Crystal clear acrylic spray may be acceptable, but get approval from your safety director before use. It is electronically protective to the extent you have maintained shell integrity plus insulating properties. The more you alter the surface of the hat, the less protection it provides. Ink, pencil marks, paint, and paper create conductive paths on the hat, so keep writing and stickers to a minimum.

It keeps you cool. Measurements taken in hot weather show that the temperature in a properly worn hardhat is often less than the temperature outside. That's due to a combination of airflow, evaporation, and shading.

What you should do for your hardhat

Properly adjust the suspension system.

Leave the shell intact. Don't drill holes in it, and don't swath it in sticker or other decorations.

Store it in a clean place out of the path of concentrated sunlight. Your car's rear window is not such a place.

Wash it with warm, soapy water, and rinse the soap off thoroughly when the hat shows signs of dirt accumulation. Wash the sweatbands and cradles, too.

Replace the suspension system if it is worn or damaged.

Replace the hat if it has dents, cracks, or signs of wear.

Replace the hat if it's been subjected to an

impact. It might not have been damaged, but you don't know for sure.

Don'ts

Don't heat it or bend it, and don't modify the visor.

Don't use the area between your head and the shell as a storage bin.

Don't wear it backwards or sideways. The front brim is designed as eye and face protection.

Demonstration

Have a volunteer wear the sample hardhat, adjusted properly. Tap the hat with the hammer, but don't use much force. You can get the point across without causing a neck injury! Ask the crew members present if anyone wants to volunteer to do this trick without the hat. Note that the hat, having absorbed the impact, may be damaged and should be replaced.

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.ceca.org to place your order or call 1-800-387-3226.

Ontario Electrical Contractor 23

BLACKBERRY TIPS & TRICKS

How to Extend Your Battery Life



BlackBerrys in some ways are the life blood of your business. As a result keeping these devices charged and operational for as long as possible between charges is of the utmost importance. There are several ways to extend your battery life. Here are a few of the most effective solutions:

- 1. Set Email Filters. Yes that's right, set some email filters to block unnecessary messages received on your handheld. The fewer wireless transmissions your BlackBerry makes, the longer your battery will last.
- 2. Decrease the backlight timeout and/or brightness. This is especially

true for the newer handhelds. Go to Options --> Display to set the backlight options.

- 3. Disable wireless sync on applications that you do not use, e.g. Memopad. Is it really necessary to transmit memopad data over the air? If not, then just disable Wireless Synchronization from the Memopad Options.
- 4. Turn Wireless Off when you are in areas of poor coverage. The BlackBerry will greatly increase it's output in poor coverage, and this can be very draining on your battery.
- 5. Set the Auto On/Off. Unless you're on call 24 hours a day, chances are you won't be using your BlackBerry late at night. So set the Auto On/Off to shut your BlackBerry off.
- 6. Set your profiles to have the BlackBerry vibrate and ring less often. Even just reducing the number of beeps can give you a little extra battery life.

As a last resort, if your BlackBerry battery simply doesn't last long enough, you can try replacing the battery.

Eaton elevates the standard of power distribution excellence for the home



Silver plated copper tous

Painted enclosure, trim & door

Commercial grade main circuit breaker

Plug-on neutral tox arc fault & ground fault protection

www.eatoncanada.ca

CHF Flag Trip breakers



Two position toggle

Trust, value and safety. When it comes to being an electrical contractor, there is nothing you can deliver or install that means more to your business. That's why every year, thousands of electrical contractors like you turn to Eaton to meet their Loadcentre needs.

CH 2004. Combination Loadcentre

Eaton is excited to introduce the CH Loadcentre and CHF Flag Trip circuit breakers. Both designed with the contractor and home owner in mind. Unsurpassed in its design, quality, safety and protection features.

Simply put, no other company offers the features and benefits you'll find in the Eaton Loadcentre collection. All this with an industry leading warranty.





Temporary Heating

Improperly installed temporary heaters have been the cause of many fires resulting in thousands of dollars in claims

In residential construction, temporary heaters are commonly used for specific heating tasks such as ground thawing, concrete curing, or general drying purposes.

Heaters, such as salamander or radiant type, are common on construction sites. They are typically un-vented and self-contained portable units. These heaters can be either LPG propane/natural gas or liquid fuel units. The heat radiating from these units is extremely intense and commonly requires eight feet clearance.

The most common reason for fires from temporary heating is the lack of proper clearance when the unit is installed.

Guidelines for Using Temporary Heating

- Only units "listed" or "approved" by a recognized testing organization should be used on the job-site.
- Temporary heaters should be used for their intended purpose only. They should be installed and operated according to manufacturers instructions.
- A written operating procedure should be established based on the manufacturer's instructions. This will ensure safe installation and operation of the unit.
- Each heater has a data plate indicating the necessary clearances to combustibles, ventilation requirements and fuel type, etc. You must adhere to these specifications.
- Multi-purpose fire extinguishers with a minimum of a 3A 10BC rating should be provided where temporary heaters are used.

Alternative Solutions To Temporary Heating

- Placing a heater outside and away from the building. For hot air units, ductwork will be required to bring the heat into the building.
- Heating units that pipe hot water into a building and distribute the heat through various methods are another safe alternative to an

open flame heater. The heater should be located in a safe location outside the building.

• If possible, the building's permanent heat source is the preferred method of heat.

Using Alternative Solutions to Temporary Heating will SIGNIFI-CANTLY REDUCE your risk of fire.

Partners in Prevention

At Federated Insurance, we believe Loss Prevention is a critical component of your Risk Management Program. Your Risk Services Coordinator, together with our Loss Prevention Team, is available to assist you in this area. Working together to reduce your loss exposures protects your bottom line!

We recommend:

- Reviewing your temporary heating procedures
- Identify if alternative heating sources are an option
- Discuss your company safety procedures including Temporary Heating at your next staff safety meeting
- If you don't have temporary heating procedures in place, our Loss Prevention Consultants can assist you.

For more information, contact your Risk Services Coordinator, our Loss Prevention Department at 1-800-665-1934, or visit our website at www.federated.ca.

Federated provides this Loss Prevention Bulletin as a service to our policyholders and their business advisors. The information provided is intended to be general in nature, and may not apply in your province. The advice of independent legal or other business advisors should be obtained in developing forms and procedures for your business. The recommendations in this bulletin are designed to reduce the risk of loss, but should not be construed as eliminating any risk or loss. Ferraz Shawmut is

now

Mersey

We've shortened our name. And increased your expertise in the safe and reliable transmission, distribution, and control of power.



What's in a name? More products, solutions, and support than you've ever had before to keep everything running safely. Changing our name changes the game, giving you all of Ferraz Shawmut plus even more resources to increase your expertise in the protection of power electronics, controls, transmission, and distribution. Ready for the next level? It's waiting for you at fsisnowmersen.com/us/CAOEC1

ca-ferrazshawmut.mersen.com

Mersen Canada Toronto Inc. Toronto, ON T: 416.252.9371

INJURY PREVENTION TIPS

Injury Prevention Tips: Hand Tools

Injuries with hand tools are not often serious, but they do involve lost time. Common injury causes include using the wrong tool, using the right tool improperly, haste and lack of training or experience.

Hand saws

Select the right saw for the job. A 9-point is not meant for crosscutting hardwood, as it can jump up and severely cut your hand or thumb.

For this kind of work, the right choice is an 11- point (+). When starting a cut, keep your thumb up high to guide the saw and avoid injury.

For cutting softwood, select a 9-point (-). The teeth will remove sawdust easily and keep the saw from binding and bucking. Ripping requires a ripsaw. Check the illustrations for the differences in teeth and action between rip and crosscut saws.

This excerpt is taken from Chapter 36 – Hand Tools - of the Construction Health and Safety Manual produced by the Infrastructure Health and Safety Association (IHSA), the full text of which is available on the Resource Downloads section of the IHSA website at www.ihsa.ca. "Just because you always did it that way, doesn't make it right."

CFAE CORNER



CFAE Level V Online Renewal Program Now Available

On June 3, 2011, the beta testing of the CFAE Level V online renewal program was finished, the results of which were extremely positive. Subsequently, the Electrical Contractors Association of Ontario is working with the online host company to review the feedback comments from the beta test participants and will be establishing protocols for launching the program. The launch of the online program to the public is targeted for early 2012. For more information, contact Susan Boorman at sboorman@ecao.org.

CFAE program update

The newly revised versions of Level I and II have now been launched and are being delivered throughout the province. To date,1,721 electricians have been CFAEcertified in Ontario.





The side and tooth-edge views of a typical ripsaw. This saw is used for cutting with the grain. Cutting is done only on the forward stroke.



The side and tooth-edge views of a typical crosscut saw. This saw is used for cutting across the grain and has a different cutting action than that of the ripsaw. The crosscut saw cuts on both the forward and backward strokes.



Switch to extraordinary lighting control with Digital Lighting Management

Adding Digital Lighting Management switches offers:

- 20-30% more energy savings with Manual-on
- 80% higher ROI than Automatic-on
- 20% Lighting Power Density credit in California Title 24

Industry-exclusive self-commissioning DLM is like having a personal energy manager in every room. It gives you the flexibility to turbocharge your energy savings without breaking the bank.

For more details on DLM visit www.wattstopper.com/DLM



A Group brand

Château Conference & Event Venue Toronto - Airport - North



Experience Excellence

To book your next meeting or event, contact: 905.851.2200 = 800.533.3009 inquiry@lejardin.com

Château Le Jardin Conference & Event Venue 8440 Hwy #27(at Hwy #7) Woodbridge, ON www.lejardin.com

Complete Meeting Package

Includes: Function Room Rental = Deluxe Continental Breakfast = Hot Buffet Lunch = Continuous All Day Refreshment Station

CMP promo applies to weekday bookings only (Monday - Friday) • Available to new bookings only, and must be mentioned at time of booking • CMP promotion cannot be used in conjunction with any other promotions • Function room rental may apply to groups under 30 people • Prices are subject to applicable taxes & gratuities

Quarterly Financial Statistics for Enterprises – Construction

	Third quarter 2010	Fourth quarter 2010	First quarter 2011	Second quarter 2011	
Selected financial ratios					
Profit margin (%)	4.8	5.1	4.2	4.1	
Return on equity (%)	18.2	18.7	16.1	15.8	
Debt to equity (ratio)	1.460	1.397	1.428	1.470	
Return on capital employed (%)	8.3	8.5	7.9	7.9	

Source: Statistics Canada – Quarterly Financial Statistics for Enterprises – Construction – Table 8-2



Ontario Electrical Contractor

Case Study – Work Reintegration

A worker sustained an injury while he was walking across scaffolding that broke, causing him to fall about 5-6 feet and break a few bones in his foot. The WSIB case manager in this claim contacted the employer to determine if modified work was available for him. When the employer stated that there was nothing available, the case worker advised the employer that they could be seen as uncooperative and could possibly be fined. The employer in turn called TeksMed.

TeksMed, in collaboration with Safety First, researched WSIB Policy 19-02-02 - *Responsibilities of the Workplace Parties in Work Reintegration*,

which states, "the employer must provide accommodation unless to do so would cause the employer **undue hardship**."

TeksMed informed the case manager on the details of the company (e.g. number of employees, anticipated projects, etc.) and pointed out that modified duties for the injured employee would be a financial strain for a company of this size.

The case manager agreed and confirmed that the worker could not be offered modified duties until he was fit to return to his pre-injury duties.

CALLING ALL STUDENT WRITERS

Would you like to see your name in print? Are you looking to get your writing published? Here is your opportunity. ECAO is looking for student writers to research and write about topics related to the electrical contracting industry. If you or someone you know may be interested, please contact Lucy Roberts at lroberts@ecao.org.



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



132 Reach Industrial Park Port Perry, Ontario L9L 1B2 portperrysalvage@belinet.ca Yard 905-985-6121 Fax 905-985-6122 Toll Free 1-877-587-4557 Cell 289-314-3366

Ontario Electrical Contractor

Quikcare Connect

Revised Form 8 in Ontario By Sue Ahuja

The WSIB has launched a revised Form 8 and as of August 2011, they no longer accept the older version of the form. The form was revised "to facilitate early intervention and improve recovery and return-to-work outcomes which will help achieve reduced claim duration." Instead of having just a single space for the area of injury, the form now allows the physician to check off multiple body parts as well as provide descriptions of the injury. It also includes a section that records prescription medications including specific information about the dosage, frequency and the duration for each prescription. Most significantly, the Form 8 will also capture some functional abilities information and therefore eliminate the need for a Functional Abilities Form (FAF) on the initial visit.

The Form 8 may be completed by physicians, chiropractors, physiotherapists and Registered Nurses.

The revised Form 8 does not completely replace the FAF but it will now only be completed when a healthcare professional is asked to do so by the worker or the employer on subsequent visits. The WSIB will not pay a physician for an FAF completed on the same day as the Form 8 for an initial visit. The healthcare professional is to ensure the worker signs Part F on the functional abilities section, and advises the worker to give that page to his/her employer.

The WSIB is also encouraging that the Form 8 be submitted electronically. This not only benefits the physicians because they will be paid faster, but benefits the employee and employer as the information will be available much quicker, thus allowing for even quicker proactive claims management.

If you are currently using the TeksMed passports, this new form will not impact the current process in place. You should still give the injured worker a copy of TeksMed's RTW plan for the physician to complete. Physicians will not complete a F8 and a FAF at the initial visit as they do not get compensated for this by WSIB. The good news is that TeksMed is paying the physicians directly for the completion of the Return to Work Plan so there should be no issue of the physician not completing the RTW

Plan and a F8. The injured worker should bring back both a copy of the FAF Section (Page 3) of the F8 and the RTW plan. However, if you are finding that the RTW plans are not being returned or are being returned incomplete, please call our office immediately and we will speak with the physician's office.

If you are not utilizing the TeksMed passports, and would like to do so, of if you require more information, please contact your Client Care team immediately by calling 1-877-850-1021.

COR Program

By Nathan Edmondson

The Infrastructure Health and Safety Association (IHSA) is launching a Certificate of Recognition (COR) program for Ontario construction contractors.

COR is an occupational health and safety audit program for construction industry employers aimed at reducing the human and financial costs associated with workplace incidents and injuries, according to IHSA.

COR is a national program currently being used across Canada, and is supported by the Canadian Federation of Construction Safety Associations (CFCSA).

IHSA will be offering the COR program in Ontario, under a signed agreement with CFCSA. In order to participate in COR in Ontario, senior management and one designated full-time employee must undergo training which will be offered in IHSA.

IHSA is working on the logistics of launching a 2011 pilot, with several firms already expressing interest. The pilot will accommodate about 45 firms, and should be underway by late October 2011.

Having TeksMed already manage your injury claims, you are well on your way to additional premium savings. Need more information on the COR program in your province? Send an email to info@teksmed.com and the Client Care team will respond shortly.

The Importance of Modified Duties

By Sue Attrill

One of the biggest challenges our clients encounter is coming up with Modified Duties for their injured workers. Although it may be a challenge, it is the best defense in cost control. Not only does is save you a considerable amount of money on your Workers Compensation, it helps with company morale and the overall well-being of your workforce.

The Benefits of Modified Duties

- Actively participating in a modified work program promotes recovery
- Workers maintain close ties to the workplace
- Workers are able to earn full wages
- It builds morale
- Reduces loss of production and rescheduling
- Reduces WSIB/WCB claims and costs and premiums
- Improves your health and safety record

Here are some great suggestions for modified duties that you might be able to use:

Online Courses

• Set up a training room with a couple of computers and update your workers skills. This is a wonderful opportunity to develop your workforce and there are thousands of courses available online

Safety Monitor

- Ensuring all appropriate safety equipment is being used on your job site and that all safety procedures are being followed
- Checking fleet vehicles to be sure that all safety checks are done and up-to-date
- Updating all safety binders and safety boards
- Update safety certificates
- Organize First Aid supplies

Office Duties

- Filing
- Photocopying
- Ordering stock and taking inventory

- Data entry
- Answering phones
- Customer service work

Shop Work

- Sweeping and organizing
- Making stock for production
- Work order distribution

Your TeksMed Client Care Specialist is there to help you come up with modified duties that will work for your business. We focus on your workers ability, not their disability, and that makes modified duties easier than you think.

Copper Wire Stripper

Double your value on scrap copper wire • More cash in your pocket Strips 120 ft per minute • Strips 14 gauge to 3 inch wire Blade can be re-sharpened • Runs on 115 volt socket



1-888-419-3555 • www.copperwirestripper.com Made in Canada

Ontario Electrical Contractor



The term "data cable" may sound vague, but it is actually quite straightforward—it is any type of cable that has the capability of transferring data from one place to another.

Data cable originally referred to coaxial cable, which was used to hook up networks in the past, but has since been upgraded to include the newer and faster fibre-optic cable and category cable. Fibre-optic cable transmits information through pulses of light sent along an optic fibre, meaning this method is the most efficient and there is no noise interference in this transmission. However, because fibre optics are much more expensive, this type of cable is not the most commonly used.

Category cable refers to standards of twisted pair cabling systems that are categorized by the rates of data transfer they can achieve effectively. Basically, these cables contain eight conductors in four pairs. Depending on how tightly they are twisted together, their data transfer capabilities will change. The higher the category number, the more data that can transfer through that type of cable and the higher the speed of transfer.

Over the years, technology has advanced to improve the frequency rates so that use of anything before Category (CAT) 5e has mostly been discontinued. In comparison with CAT 3's rate of 10 MHz, CAT 5e can transfer at 100 MHz and CAT 7, the fastest and newest one, can perform at frequencies of up to 1000 MHz.

In addition to being able to transfer more data, CAT 6 and CAT 7 have fully shielded individual wire pairs within the shielded cable as a whole, meaning these cables provide a level of functionality that was impossible with unshielded twisted pair (UTP) cabling like CAT 5e. This causes CAT 7 to have the strictest exclusion of system noise during data transfer as well as better heat performance. Though CAT 7 is the most advanced category cable and is great for massive data transfer, it is still quite expensive and, as a result, not as commonly used.

On the other hand, CAT 5e is used in the wiring of most networks in organizations, offices, businesses and homes in order to enable the transfer of information or files, as well as to create outlets to which desktop computers can be connected. Most Ethernet computer networks are wired with CAT 5e cable, but it can also be used to carry telephone and video signals. As a result, CAT 5e is ideal for the automation of a home or office in areas such as lights, security systems, cameras, temperature control, appliances and sound systems.

Within the last 10 years, advances were made using CAT 5e cables to reduce the cost and increase the efficiency of video installation in, for example, home surveillance systems. With low-voltage cameras, it was discovered that a coaxial cable and a separate power cable could be replaced by a single CAT 5e cable, making the installation quicker and greatly decreasing the noise rejection from electrical or radio frequency interference.





Additionally, CAT 5e uses a thinner conduit, so it is better for running more cable in a smaller space. When a power outlet needs to be installed, the danger factor increases, so by replacing a power cable with CAT 5e, the installation is quicker, more efficient and safer.

Even though CAT 7 is not as widely distributed, there are several specialized areas in which it is used. Its capacity for massive data transfer is necessary for phone companies using Voice over Internet Protocol services, which will be important for new teleconferencing and tele-learning programs in the future.

CAT 7 also aids in linking the Internet to televisions, such as video-on-demand and broadband video. Future uses of CAT 7 may include remote training and teaching through video, live digital recording of conversations or possibly even television broadcasts on a telephone handset.



hespv.ca · 1.866.258.0110 · sales@hespv.ca

As the world grasps the importance of energy management, trusted global manufacturer CARLO GAVAZZI is ready to assist as we collectively strive to 'go green' and reduce our energy consumption.





PowerSoft Energy Manager Powerful Analysis Platform Smart Power Quality/Utility Analyzers with RS485/Ethernet/BACnet Communications

With all types of products, from basic CTs to advanced analyzers with harmonic analysis, and optional types of communications / software, we have the solution to fulfill your application requirements.

Wasteful power consumption is money, so don't delay... **call today!** GavazziOnline.com/Energy • 888.575.2275 • Gavazzi@CarloGavazzi.com



Business owners are tasked—every day—with the challenge of predicting the future:

Where will the economy go in the next six months?

What are my competitors going to do?

How will my customers react to my new pricing policy?

Will my company stay profitable and will my margins be impacted with all that is happening around my business?

It's a (not-so) simple fact of life for entrepreneurs that the future must always be considered when developing a plan for today. Most business owners grasp—and embrace—this concept, utilizing whatever tools they have at their disposal to develop an educated and informed plan as to how to best manage their business for whatever the future may hold.

With one major exception.

Business owners are seemingly unwilling or unable to delve into the discussion regarding their own futures, and how they will impact the future of their companies.

In a recent meeting with a successful thirdgeneration entrepreneur, my partner and I asked what his plan was for succession to the next generation of ownership. The response was immediate and decisive:

"Well, at a recent board meeting, we passed a resolution making me immortal. So no succession plan is needed!"

He, of course, made this comment in

jest, and went on to document the strong organizational structure he and his partners have created, and the mechanisms in place to prepare the organization for a transition of ownership (whenever it may become necessary or a reality). But the idea stuck with us and led us into a rather interesting discussion on the apparent lack of urgency among entrepreneurs in dealing with this particular topic.

Indeed, it seems that many entrepreneurs must believe this (i.e. their immortality) to be the case --otherwise, there's no logical explanation for their unwillingness to broach the subject of "what happens after I'm gone?" Over the years, many business owners have said to us (in some variation) that their intentions are to work in the business their entire lives ("They'll have to carry me out of here in a box," one such client suggested). Our job certainly isn't to force anyone into retirement, and if a business owner wants to work in the business for the rest of their life, then that's their decision. Our experience suggests that owners with this mentality will invariably leave an unfortunate legacy behind.

A responsible business owner, therefore, recognizes the need to prepare the business for the time when the new owner(s) will be in place (whether the business is sold by the owner, transfers to another generation or the ownership changes hands after the owner's passing).

In many cases, significant financial or tax issues arise from the result of the business changing hands in this manner, with the next generation (often the founder's children or spouse) left to clean up the mess rather than focus on the continued growth and development of the business. Beyond growth, the family unit's savings are most often tied up in the business and put into peril if proper planning is not considered.

Sadly, no board is capable of appointing an "immortal CEO"—despite the obvious continuity advantages this would create. So unless modern science makes some significant leaps forward in the next few years, more and more business owners are going to find themselves in need of a plan to manage the transition of ownership or sale of the business. We are reminded every day that the population is aging and that the baby boomers are beginning to enter retirement age, a trend that will continue for the next 20 years or so. As a result, it is anticipated that there will be a significant "spike" in the number of available businesses, with, conversely, a decreasing number of available or interested buyers. The obvious net result is that we will see a buyer's market in the coming years with the businesses that are best prepared positioned to be the most attractive and the most likely to receive the highest level of return.

Most business owners spend much time working to improve their businesses on a daily basis—trying new ideas, changing processes and rethinking their approaches in the hopes of giving themselves a leg up or even the slightest advantage that may lead to continued success or future growth. Most business owners would jump at the chance to be ahead of the curve in their industry and positioned as the leader in any given area. This is your chance, but also your obligation, and there is no better time than today to start thinking and developing your exit plan.

In the next few editions of this publication, we'll share with you some stories, insights and

strategies that will help you start along the path of developing your ultimate plan for the future. Just as no board can pass a resolution ensuring a business owner's immortality, there is no "cure-all," one-stop, answer or solution on how to best manage the transition process. As we well know, every business has a unique set of challenges and conditions within which it operates. That doesn't, however, mean that there are no plans that can be put in place to best prepare your business, and you, for what may happen next.

As we said earlier, business owners are constantly tasked with trying to know what the future will hold. While we'll never really know what the future will bring, as a responsible business owner, preparing for the multitude of possibilities is a must, particularly in our challenging (and ever-changing) economy.

John Geddes is a managing director of EKSIT Strategies Inc. He has worked with over 200 companies, primarily assisting in the areas of strategic and succession planning. John is the author of the recently published book Succession and the Family Business – A Road Full of Potholes or Paved with Gold.



CSA Standards and **NETCO** Launch Personnel Certification Program for Electricians Installing Solar Photovoltaic (PV) Systems

The growth of the Canadian solar photovoltaic (PV) energy sector, the shortage of skilled labour and the need for safe and effective installation of solar PV systems have accelerated the requirement to identify and formally recognize competent system installation personnel.

In September 2011, CSA Standards (CSA) and the National Electrical Trade Council (NETCO) launched a national, third-party, independent personnel certification program for qualified electricians installing solar photovoltaic (PV) systems in Canada. It is the mechanism through which CSA—serving as a third-party certifying body—assesses and formally recognizes a journeyperson electrician's ability to meet national standards related to the installation and maintenance of solar PV systems. "Electrical contractors may consider levering this Made-in-Canada personnel certification program to gain market share by promoting consumer confidence in the quality and safety of solar PV installation projects," says Eryl Roberts, CECA Executive Secretary and NETCO Treasurer. As more Canadians appear to be embracing a green economy, a qualified workforce for solar PV installation and maintenance is critical to capturing work in this emerging market.

CSA Issues First Certifications in Canada

On September 16, 2011 at a special ceremony during the IBEW International Convention Exposition in Vancouver, British Columbia the first certifications were awarded to four qualifying IBEW electricians working with United Power Ltd. Congratulations to Peter Curtis, Martin Kugler, Raymond Moffat and Dustin Thomas. These electricians participated in a beta test round of the certification in order to establish an acceptable pass mark, and the certification is now openly available to everyone who wishes to earn it.

Certifications were also issued Endre "Andy" Cleven, Training Director, Electrical Joint Training Committee, IBEW, Local 213 and Electrical Contractors Association of British Columbia and to John Salmon, President of A.R. Milne Electric in Waterloo, Ontario.

"CSA applauds the first Construction Electricians certified in solar PV systems in this program that is designed to help ensure the safe and effective installation of solar equipment while reducing the risk of serious accident and injury," says Stephen Brown,



Director, Energy, CSA Standards. "These certified candidates have demonstrated measurable knowledge in the solar PV area by passing an assessment against objectively identified criteria. We hope this program will increase public confidence in PV installations and in turn promote energy efficiency."

Fast Facts

- ✓ Certification Program Name? Construction Electrician (NOC 7241) Solar PV Systems Certified. Construction Electrician is the official Red Seal occupational title which may vary by province/ territory. The National Occupational Classification (NOC) code refers to the occupational description referenced in the Red Seal Program's national standards development.
- ✓ Who? In order to challenge the certification exam, candidates will demonstrate compliance with the following requirements:

- Construction Electrician (NOC 7241) Certificate of Qualification
- demonstration of completion of a recognized solar PV Installation and Maintenance Training Program consisting of in-class and a practical (hands-on) component; and,
- submission of a completed application, certification agreement and certification fees.
- ✓ Quality? CSA's approach adheres to the ISO 17024 international standard for certifying bodies.
- ✓ **Cost?** \$250 Certification Fee & \$95 Application Fee
- ✓ Certification Period & Renewal? Five year period for certification. Renewal by re-examination only.

- ✓ Certification Exams? Certification exams are administered at CSA-designated test centres across Canada.
- ✓ **Certification Documentation?** CSA issues a certificate and maintains a database of qualified practitioners.
- ✓ Recognition of Training Providers? CSA does not accredit training providers but rather offers recognition if the curriculum aligns to the national standards and related test blueprint. Training providers are invited to submit their curriculum to CSA for review. CSA then posts a list of recognized training providers on its web site.

For more information visit www.csa-america.org/personnel_certification or www.ceca.org/netco.

You Can Come To Us. Or We Can Come To You.

Now Open In Oakville

At Peel Scrap Metal Recycling, you can take advantage of our industrial container service, call for pickup or bring your materials to either of our conveniently located warehouses, including our new Oakville location on South Service Rd.West.

At Peel you'll always get the competitive pricing, service and knowledge that has made us one of the GTA's best.

Materials we accept include:

Insulated Wire • Copper • Aluminum • Stainless Steel Transformers • Cast Iron • Electric Motors • Ballasts Steel • Brass

Visit our website for complete information.

905-825-1288

I 150 South Service Rd.W., Oakville Between 4th Line & 3rd Line

905-612-1288

2301 Anson Drive, Mississauga West Off Torbram, North Of Derry



New Life For Old Metals

www.peelscrapmetalrecycling.com

Electric Hook-ups By Cassandra Sottile

The phrase "hook-up wire" can be used to describe, in general, any small-to-medium gauge wires used to make circuit connections within enclosed electronic devices; meaning they are most commonly used in low current and voltage situations.

Hook-up wires are usually made of either solid or stranded copper, are often tin-plated to allow for soldering and are insulated with some form of thermoplastic or rubber material in order to prevent current leakage.

There are many different types of hook-up wires used today, with varying standards of flexibility, temperature sensitivity and materials. Some basic types of hook-up wires that fall under the UL category are typically tinned copper strands and very flexible. UL 1007 300V, UL 1015 600V and UL 1061 300V are all low-cost hook-up wires used in circuit boards and many different electronic connections. Specifically, UL1015 is used in the wiring of appliances and UL 1061 in the wiring of computers, office machines and other electrical equipment.

Similar to the UL brands is the Kynar hook-up wire. This cable is also known as "wire wrap" and is commonly made of solid-stranded and silver-plated copper. It is used in computers and other types of business machines, like the UL forms.



Another more specialized form is the Teflon hook-up wire, which has, as indicated by its name, an insulation of Teflon, meaning it is high-temperature wire with a rating of 200°C. Because it is manufactured with silver-plated copper strands, the pricing of this particular type of wire has increased. This wire's greatest asset is its ability to withstand heat, so it is most commonly used in high-temperature situations. Additionally, the slippery Teflon insulation deters moisture, gas and solvents during outdoor use.

Like the Teflon wire, the THHN wire is manufactured with copper strands. However, this hook-up wire has a nylon coating and a PVC insulation, which makes it stiff rather than pliable. This inflexibility ensures the THHN wire is easier to feed through a conduit or duct because it will not bend when pushed.

The THHN cable is commonly seen in the connection of lights and appliances to a power supply in homes or other buildings. Furthermore, it services conduits of feeders and branch circuits in commercial settings. THHN cable can also be used outdoors because its PVC and nylon insulation renders it resistant to water, gas and solvents.

Like the THHN, the irradiated wire is a type of PVC hook-up wire. This one, though, has an even stronger insulation that makes it solder iron-resistant, so it is frequently used in the making of wire harnesses and connections involving a hot solder. While standard PVC wire will melt from the strong heat of a solder touching it for too long, irradiated wire can defy this challenge.

In general, hook-up wire is also used in control panels, electric metres, computers and major appliances. One can always find a type of hook-up wire that meets the necessary requirements—with excellent electrical properties, heat resistance, chemical resistance and/or toughness. Because they can be resistant to oils, alkalis, acids, flame and moisture, hook-up wires can even be used in hazardous or extreme environments such as aviation electronics and are refining the speed and quality of delivered signals in computing, telecommunications and systems in extreme environments.

Gymnasium in Canada

CHANGED OUT 1 FOR 1 LED VERSUS METAL HALIDE



BEFORE 400W PULSE START METAL HALIDE

LED INDUSTRIAL HIGH-BAY

Input Voltage: 120/277v Options: 347/480v coming soon Rated Life: 75,000-80,000 hours Operating Temperature: -40° to +55°C Rated: IP65 Available size: a) 100w b) 150w c) 250W Lumen Equivalent: a) 17,000lm b) 24,000lm c) 50,000lm Beam Spread: 160° Warranty: 80,000 hrs based on 24hrs/Day on LED Chip and 7 years on power supply



LED FLOOD LIGHT AND LED WALL PACK

A) LED Flood Lights Are Availiable In: 1) 70W 2)140W B) LED Wall Packs Are Available IN: 1) 30W 2) 50W

Options: 347/480v coming soon Lumen Equivalent: LED Flood Light: 1) 14,000 lumen 2) 22,000 lumen LED Wall Pack: 1) 6,000 lumen 2) 10,000 lumen Operating Voltage: 120/277V Rated: IP65 Rated Life: > 75,000-80,000 hours Beam Spread: 170° Warranty: 80,000 hrs based on 24hrs/Day on LED Chip and 7 years on power supply







AFTER LED INDUSTRIAL HIGH BAY 150W

LED TUBE

Rated Life: 75,000-80,000 hours **Operating Temperature:** -40°to +55°C Operating Voltage: 100-240v/AC

Available Size: 18 watts (4') Lumen Equivalent: 3400lm Beam Spread: 120° No ballast required Warranty: 5 years



HB67 SERIES 4' (4 & 6 LAMP) LED FIXTURES, AVAILABLE IN T5 AND T8 OPTIONS.

CHIP ON BOARD LED TUBE TECHNOLOGY « NEW »

- 18 watts high lumen multichip led tube (>100 L/w) 1)
- 2) Does not emit any heat compared to multi led tube
- 3) Efficiency not affected by temperature compared to multi led tube
- 4) Available in 2 ft (9 watts) and 4 ft (18 watts) 5)
- Working temperature: -40 °C to +40 °C 6) Operating voltage: 120 volts, 220/240/277 volts
- 7) Retrofit for T8 and T5
- 8) Warranty: 5 years limited warranty (not prorated)
- compared to 3 years maximum on multi led tube
- 9) Eradicates glare and shadowed spots
- 10) Patented over 50 countries
- 11) Color temperature: 3000 °K, 4100 °K, 5000 °K, 6500 °K 12) Because of very low heat of the chip on board led tube
- compared to multi led tube, life time is a lot longer with new technology

LED STREET LIGHT & PARKING LIGHT

Rated Life: > 75,000-80,000 hours Rated: IP65 Available Size: a) 60w b) 100w c) 150w d) 200w Options: 347/480v coming soon Input Voltage: 120/277v Beam Spread: 170° Warranty: 80,000 hrs based on 24hrs/Day on LED Chip and 7 years on power supply



Be at the forefront of the latest LED technology!

Ontario, Maritimes and Western Canada Del Steeves Phone: (250) 494-3130 Fax: (877) 410-2697 Email: delsteev@telus.net Quebec Sales Helene Nankivell Phone: (450) 777-2848



Manufactured By CBM Electronic Lighting Inc. • 82 Irwin Street, Granby, QC J2J 2P1 • Head Office (450) 777-2848

Volume 49 • Number 4 Fall 2011



Advertisers Index

Ainsworth IncInside Front Cover www.ainsworth.com	Eckler Ltd11 www.eckler.ca	Occupational Health and Safety42 www.ecao.org
Arlington Industries21 www.aifittings.com	Federated Insurance Inside Back Cover www.federated.ca	Peel Scrap Metal Recycling Ltd
Canadian Standards Association19 www.csa.ca	Home Energy Solutions35 www.hespv.ca	Port Perry Salvage31 www.portperrysalvage.com
Carleton Electric Ltd40 www.carletonelectric.com	IBEW Construction Council of Ontario5 www.ibewcco.org	R3 & A Limited15 www.r3alimited.com
Carlo Gavazzi (Canada) Inc35 www.gavazzionline.com	IPEX Management Inc6 www.ipexna.com	S & C Electric Canada Ltd
CBM Lighting Mfg. Inc41 www.cbm-lighting-mfg.com	Lapp Canada17 www.lappcanada.com	Skipwith & Associates31 www.skipwith.ca
Château Le Jardin Conference & Event Venue29 www.lejardin.com	Langille's Scrap & Cores42 www.scrapandcores.com	Superior Flexible Conduits Inc
CMP Products Texas Inc Outside Back Cover www.cmp-products.com	Mersen Canada Toronto Inc. (Formerly Ferraz Shawmut)27 www.ca-ferrazshawmut.mersen.com	Thomas & Betts9 www.tnb.ca
Copper Wire Stripper	Millworks MFG4 www.millworksmfg.com	United Wire and Cable13 www.unitedwc.com
E.I. Dupont Canada Company3 www.personalprotection.dupont.ca	Nesco Sales & Rentals12 www.nescosales.com	W.A. Electric Controls30 www.waelectric.ca
Eaton25 www.eatoncanada.ca	Nexans Canada Inc	Wattstopper



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



OCCUPATIONAL HEALTH & SAFETY PROGRAM Contact your safety representative: **Richard (Rick) Mei** Box 2575 Sudbury, ON P3A 4S9

Tel: (705) 560-8997 Fax: (705) 560-9038 Cell: (705) 669-7112 rmei@sympatico.ca www.ecao.org/links_safety.html

"We can't do a wiring job without our tools or wire.

Without them, we're missing two of the most critical things we need to get the job done. We even incorporated a new company to hold our equipment, that's how important they are! So when some-one broke into a locked tool container on our lot and stole both, we were sure glad we're with Federated Insurance.

Knowing your business matters



Find out more at http://ecao.federated.ca

Allan is our Federated Insurance representative, and the service he and his team provide is incredible. He knows his stuff, he's a true professional, and when we send him an email, we get a response back fast.

So when our equipment container was robbed, we called Allan and he connected us with Federated Insurance's claims service. They looked after us Immediately, professionally, and accurately, and before long, our claim had been settled and we got paid the full amount. It was seamless to us: Federated Insurance handled the business with the claim, so we could get back to our business."

> Gary Jubenville, Falco Electrical Systems, Ltd. CECA member since 2000

Federated Insurance is a proud supporter and the recommended insurance provider of the Electrical Contractors Association of Ontario.



Knowing your business matters.

Quality and Reliability really do count

CMP Products has for more than 50 years cemented an International reputation for manufacturing Quality and Reliable electrical cable gland products for use in various sectors of Industry, including; Oil and Gas, Petrochemical, Pharmaceutical, Power Generation, Mining and Transportation Infrastructure.

Many of the Company's innovative developments incorporate unique features which have evolved directly from Client's needs providing significant technical and commercial benefits. This is just one example why CMP Products are highly regarded as the specialists in the field of Hazardous Area Cable Gland design and manufacture.

TMC2X, TMC2 & TC CABLE CONNECTORS

New Products

Our expansion into the Canadian market coincides with the launch of a series of Teck and Tray cable connectors, the TMC2, TMC2X and TC. With client input, we have designed user friendly features into these products to enable a simple, straight forward and trouble free installation whilst providing Global approvals and multiple protection methods in a single product.

Innovation

Our extensive R&D department constantly review product design and performance to ensure compliance with the ever changing cable constructions and industry standards. This process has enabled CMP Products to boast many industry 'firsts' for product features and approvals. Examples of these "firsts" are deluge proof cable glands, Bi-Code approvals and our revolutionary 'CDS' Flame proof sealing system.







The very latest innovation from CMP Products is **RAPID**

Traditional explosion proof (Class I, Div 1, Zone 1 Ex d) seals employing a clay based sealing compound, have been used in our industry for many years to provide effective explosion proof protection. However, a certain degree of risk is associated with this traditional installation process and this risk increases with the number of cable cores. Multi core cables require the highest degree of competence and a long installation time to ensure a void free, safe installation. Not to recognise this will lead to rework, or failure of the seal.

RAPID is a Liquid Pour, Fast Curing, Liquid Resin Seal that installs in seconds and cures in minutes. Its unique formula begins with a low viscosity liquid that flows into the cable interstices completely surrounding the cable conductors, displacing the air from the connectors in the process ensuring the "perfect seal". The viscosity then increases and completely cures in less than 40 minutes.



RAPID Ex

Reduces Risk and Cost.

For more information please contact info@cmp-products.com