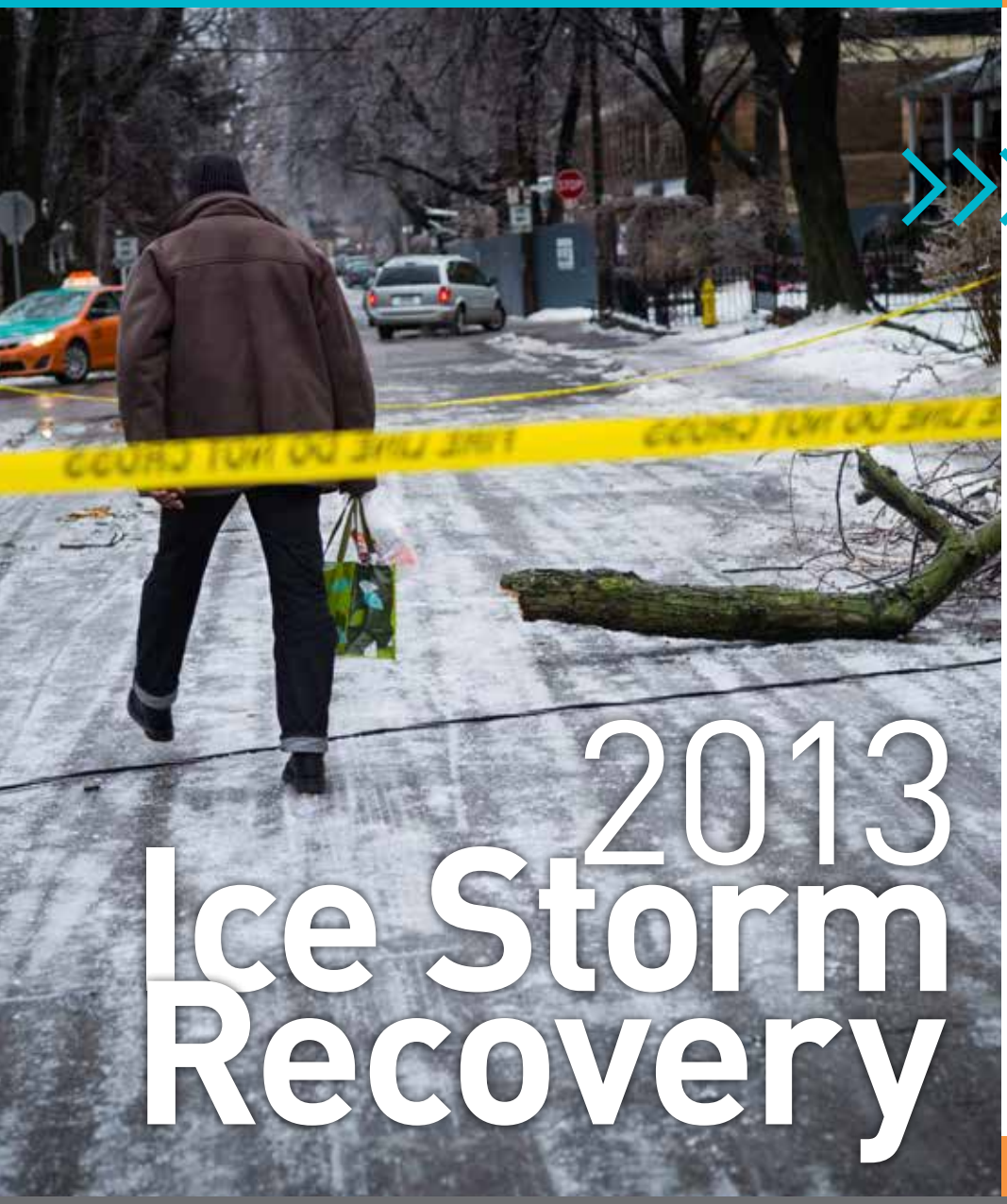
PLUGGED IN

News, Views and Updates from the Electrical Safety Authority

Winter 2014



2013 Ice Storm Recovery

Working together to restore power after the ice storm

Electrical Safety Authority

1-877-ESA-SAFE ESASAFE.COM

What's Inside

iNSiDE

Our Mission:
To improve electrical safety for the well-being of the people of Ontario.

Our Vision:
An Ontario free of electrical fatalities and serious injury, damage or loss.

The Importance of Hiring Qualified Workers

ESA has learned that an unqualified person has been trying to gain employment with Licensed Electrical Contractors. This individual is using false resumés and has also presented a forged Certificate of Qualification (C of Q).

A requirement of having an Electrical Contractor's Licence is to ensure that all electrical work is carried out in accordance with all applicable laws and regulations, including those relating to health and safety. As per Section 4 of the Ontario College of Trades and Apprenticeship Act, 2009, no person shall employ or otherwise engage an individual to perform work or engage in a practice that constitutes engaging in the practice of Electrician (Construction and Maintenance) unless the individual holds a Certificate of Qualification in that trade that is not suspended or unless the individual is an apprentice in that trade and is working pursuant to a registered training agreement that is not suspended.

Failing to adhere to all applicable laws can affect your Electrical Contractor and/or Master Electrician Licence. To protect yourself and to make sure you are complying with the conditions of your Electrical Contractor Licence, always ensure that all of the people you hire are qualified to do electrical work by asking for their C of Q and verifying it with the Public Registry at the Ontario College of Trades website, www.collegeoftrades.ca.

We will continue to provide additional information on this particular unqualified worker in upcoming editions of Plugged In and on the convictions page at *esasafe.com*.

Licensing Convictions for Sept. 1, 2013 – Dec. 31, 2013:

Anthony Ianniello, Niagara Falls
- Commercial renovation
- $750 fine, plus victim surcharge – no EC licence
- $750 fine, plus victim surcharge – failure to apply for permit

JF Industrial Systems (Windsor) Inc., Windsor
- Machine relocate and connection
- $25,000 fine, plus victim surcharge – no EC licence

Mike Schoenwald, operating as Knight Works, Toronto
- Dental office renovation
- $500 fine, plus $110 victim surcharge – no EC licence

Oscar Lewis, operating as KMO Inc., Ottawa
- Commercial renovations at four sites
- $8,000 fine, plus $2,000 victim surcharge – failure to apply for inspection (4 counts)

If you are aware of anyone doing electrical work in violation of the Ontario Electrical Safety Code or electrical contractor licensing regulations, report it to ESA at 1-877-372-7233 or at esasafe.com. ESA looks into every such report we receive.

Who is responsible for the installation of the underground raceway or conduit?

The installation of underground conductors in a raceway or conduit should be a smooth process. This type of work should be only undertaken by a Licensed Electrical Contractor (LEC) meeting the requirements of the Licensing Regulation O.Reg 570/05, if the raceway or conduit is to be used for power feeders or electrical conductors. The LEC who is installing the conductors needs to make sure that the installation, including conduit(s) is in compliance with all of the Ontario Electrical Safety Code (OESC) requirements and all other applicable laws.

The following process is required to determine the ampacity required:

- Determine if single or multiple conductors are installed in a raceway or conduit;
- Determine if the conductor material is copper or aluminium;
- Select the proper conductor configuration from the ***B4 Diagrams***;
  - » Most commonly used are ***Diagram B4-2*** –conduit (duct bank), or ***B4-4*** – raceway
- Determine type of load, continuous or non-continuous;
  - » ***Rule 8-104(3)***
- Select ampacity of conductors;
  - » Corresponding Tables in Appendix D depending on the configuration used from the B4 diagram and a load type
- Determine conductor ampacity considering equipment termination temperature
  - » ***Rule 4-006***, and
  - » ***Bulletin 4-12-**** – Topic (4), Underground conductors' ampacities and ***Rule 4-006*** requirements

Diagram **B4-2**

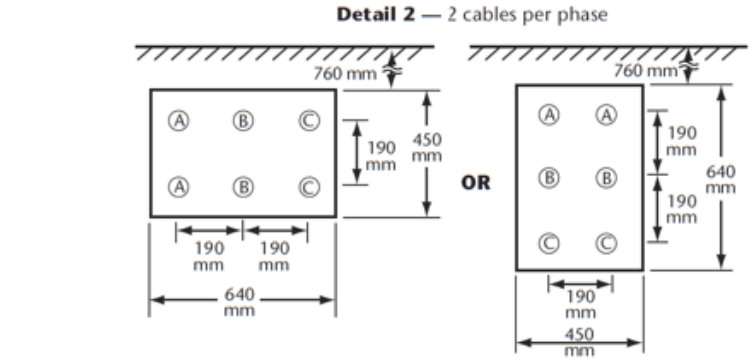
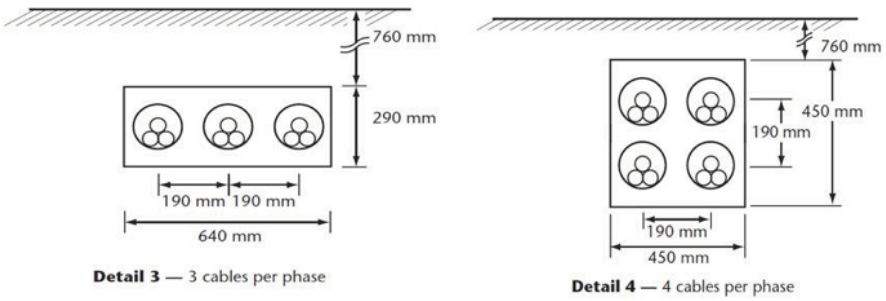


Diagram **B4-4**



The ampacity of conductors is determined by selecting a configuration from the B4 Diagrams in conjunction with the applicable tables in Appendix D.

The spacing and depth of the raceway/conduit is critical in order to use the diagrams and tables listed in the OESC to determine ampacity of cables. If the configuration does not comply with the ones listed, an ampacity calculation in accordance to the IEEE 835 is required to be submitted.

In conclusion, the installation of the underground raceways or conduits and associated conductors require the LEC to file an application for inspection (permit) with ESA for the electrical work.

Safety Partners
Worked Together to Help Restore Power to Thousands

Just days before Christmas, as many people were making final preparations for holiday family time, southern Ontario was hit by the worst ice storm since 1998. The storm dropped more than 30mm of freezing rain over a 48-hour period, leaving 3cm of ice on the ground. The major storm damage brought down trees and downed powerlines resulting in power outages affecting at its peak 350,000 residents across the province during one of the coldest periods of the year.

The damage was not limited to just overhead powerlines. There was severe damage to homeowners' electrical equipment and electrical services. ESA worked collaboratively with our safety partners to help restore power to hundreds of thousands across the province. ESA implemented its crisis plan immediately after the storm hit with ESA Inspectors working continuously and conducting over 11,000 inspections. Our call centre extended regular hours to remain open evenings, weekends and holidays to accommodate storm-related applications. Our call centre processed approximately 4,200 applications to ensure customers had their power restored in a timely manner.

In the days and weeks that followed, ESA worked collaboratively with our safety partners to help restore the power.

Working together with local utilities to expedite power restoration and ensure safety was the number one priority

ESA Inspectors worked closely with all utilities and travelled in conjunction with them through the hardest hit areas to restore power as quickly as possible. For example, ESA appointed dedicated Inspectors to work one-on-one with Toronto Hydro restoration crews to determine if the damage to customer-side equipment was safe to allow power to be restored. In many cases, Inspectors also canvassed the neighborhoods to identify damage to the homeowners' equipment even where there was no loss of power and left information regarding the repair and inspection process. ESA continues to follow up with many of the homes that sustained damage to ensure the repairs are completed and no safety hazards remain.

ESA Working with Licensed Electrical Contractors to ensure storm repairs were inspected as quickly as possible

The ESA call centre brought staff in on extended hours to address storm-related efforts. The extended hours helped to ensure permits and connection authorizations were processed quickly and Inspectors were dispatched immediately to avoid delays in power restoration. ESA also published a list of Licensed Electrical Contractors (LEC) in alternate, mobile-accessible formats on our website to assist homeowners in selecting an LEC for their repair work.

Updating Government

ESA provided daily updates on the status of the repairs and restoration efforts to ensure the government had the most current up-to-date information. This information was key ensuring all stakeholders at the provincial level were kept informed in order to avoid delays in any part of the restoration process.

Communicating and collaborating with all stakeholders played a key role in the process

ESA released several public communications during the storm with important safety tips and issued continual updates through ESA's social media channels and website. These channels were key to helping keep the public informed and provided a great opportunity to share safety information with a large audience in real time with timely updates. Our Inspectors distributed over 20,000 safety information sheets to homeowners to assist them through the repair and reconnection process.

The crisis management system ESA had in place proved to be very effective in ensuring that all stakeholders were able to communicate and collaborate with ESA to ensure the repairs process went smoothly and that all emergencies were addressed with extremely high response times. ESA is also reviewing the lessons learned from the ice storm in order to address any gaps and make improvements for future situations.

scores + stats

Apr. 1, 2013 – Dec. 31, 2013

Managing wiring services	
Call centre calls answered	379,554
Inspections	332,829
Defects recorded	162,044
General Inspections (Z8)	8,484
ACP Contractors	2,416
Wiring compliance and enforcement	
Hazard Investigation Requests (Z7)	8,674
Notices of Violation	361
Preventing hazards and harms	
CSS customers (26,823 sites)	4,042

Product safety	
Reported Electrical Product Safety Incidents	204
Reported Electrical Product Safety Incidents (Triaged by Health Canada)*	93
Recalled Product Notifications	21
Licensing management	
Licensed Electrical Contractors	7,196
Master Electricians	11,854
Complaints received	1,263
Complaints resolved	1,092

Safety materials distributed	
Powerline and Worker Safety, LEC Campaign	34,649
Electrical distribution management	
Distribution-related Incidents	153
Compliance audits	53

**In 2011, the federal Canada Consumer Product Safety Act (CCPSA) administered by Health Canada came into effect, outlining the responsibilities of industry across Canada for consumer product safety, including mandatory incident reporting and document retention.*

As a result, on April 15, 2013, Health Canada fully took over all responsibility for assessment and investigation of incoming consumer electrical product reports. In this case, consumer product safety reports are triaged through Health Canada's process. This does not include reports received concerning industrial electrical products and unapproved or counterfeit electrical products.

safety alerts + recalls

RCL13-08 Canarm LTD. Recalls Ceiling Lights Due to Shock or Fire Hazard

When the unit is being mounted, it is possible that anyone could screw in the main mounting stud too far which can result in damage to the protective coating on internal wires, causing a potential fire or shock hazard. 4,225 units were sold in Canada.

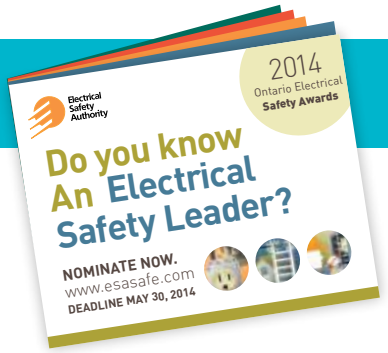
RCL13-10 Fluke Corporation Recalls 37x Family of Clamp Meters Due to Potential Electrocution from Low or No Voltage Reading

The printed circuit assembly may not be properly fastened to the test lead input jack. This may result in inaccurate voltage readings, including a low or no voltage reading on a circuit energized with a hazardous voltage, presenting a shock, electrocution or thermal burn hazard. 2,553 units were sold in Canada.

RCL13-13 Cefco Canada Recalls GFCI Receptacle Testers

The affected product has not been tested to determine whether it is compliant with the Canadian Standards for product safety and may pose a shock hazard. 6,60 units were sold in Canada.

To learn more about recent product recalls and safety alerts please click on the link on the front page of the ESA website.



2014 Ontario Electrical Safety Awards - Call for Nominations Now Open!

We all have a role to play in electrical safety. Each year, ESA looks for outstanding individuals and organizations that have made a significant contribution to creating a safer province.
You may know an organization or an individual whose efforts and contributions are improving safety. Here is your opportunity to have them recognized with an Ontario Electrical Safety Award.

Do you know a champion of electrical safety?

We are looking for a person(s) or organization(s) in your community, work-place or industry that should be recognized for advancing safety in one of the following areas:

- Powerline Safety
- Worker Safety
- Consumer/Home Electrical Safety

Tell us who they are so that we can recognize their leadership, and honour their contribution.

Be a part of the Winners Circle!

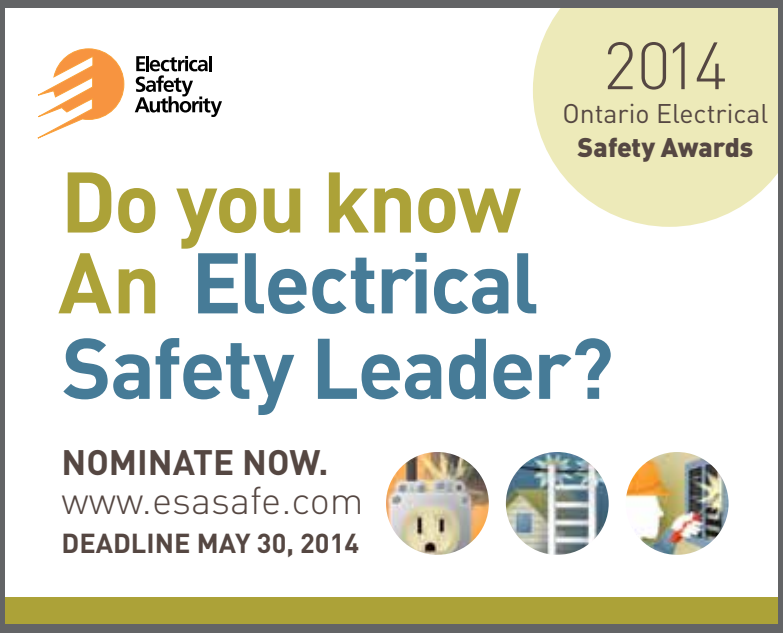
Since the safety awards were first introduced four years ago, previous winners have included Enersource Hydro, London Hydro, HGTV's Bryan Baeumler & Paul Rhynold, Mike Holmes, Cambridge North Dumfries Hydro, Waterloo North Hydro, Whirlpool Corporation and many more.

To view all of the previous winners, visit www.esasafe.com/about-esa/electrical-safety-awards.

Electrical Safety Authority

To submit a nomination, or to learn more about the awards, please visit esasafe.com

The deadline for nominations is May 30, 2014. You or your organization could be honoured at the 2014 Ontario Electrical Safety Awards celebration in Mississauga on Sept. 30, 2014.



Update on ESA/ECRA Five-Year Donation to Sunnybrook Rehabilitation Facility Program

In 2009, the Electrical Safety Authority entered into a partnership with ESA/ECRA to make a donation to the Sunnybrook Health Sciences Centre through their "Electrical Safety and Injury Treatment Program" at the St. John's Rehabilitation facility.

ESA/ECRA make a donation to the Sunnybrook Health Sciences Centre through their "Electrical Safety and Injury Treatment Program"

The program is the leading centre of expertise in Canada for medical research, maintaining clinical and incident data and driving treatment options for individuals who have sustained an electrical burn injury.

It not only focuses on the research and treatment of electrical burns but it also works to help victims of electrical injuries rehabilitate themselves.

Every year, ESA corporate and ESA/ECRA each donate $25,000. The funds are contributed through ECRA contractor licensing fees to the burn unit that directly impacts the electricians and victims of electrical burns. The donations have continued with a donation scheduled for March 2014 and the final donations will be submitted in March 2015.

The program has made significant strides in not only identifying the visible effects of an electrical injury but it has also recognized the injuries that are not always visible and works towards providing treatment options for these types of injuries.

This important stakeholder relationship provides ESA access to a world-wide community of people who are undertaking work related to electrical safety, and offers an opportunity to gather and share data to help ESA in our efforts to improve electrical safety in the province.

Electrical Safety Authority

Electrical Contractor Registration Agency

Sunnybrook HEALTH SCIENCES CENTRE when it matters MOST

What's Happening

ESA will be closed on the following statutory holidays.
April 18 – Good Friday
April 21 – Easter Monday
May 19 – Victoria Day
July 1 – Canada Day

Connect with us:
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Electrical Safety Authority

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We'd like your input

Please send your comments or story ideas to plugged.in@electricalsafety.on.ca.

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