

PLUGGED IN

FALL 2020



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**Electrical
Safety
Authority**

Connecting Digitally to Licence Holders





Year-To-Date Convictions

Pandemic related events and closures have had a major effect on justice system in Ontario and throughout Canada. Not surprisingly, court cases, investigations and prosecutions conducted by ESA have been slowed down, paused or stopped. Below is the summary of the current state of events. Please note that the situation is very fluid and is subject to change day-to-day.



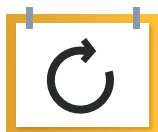
MAJORITY OF COURTS IN ONTARIO ARE CURRENTLY CLOSED

Commencing March 16, 2020 all in-person Provincial Offences Act (POA) matters have been immediately adjourned.

All in-person appearances scheduled in municipally-administered Provincial Offences courts and all *Provincial Offences Act* appeals to a judge of the Ontario Court of Justice will be adjourned until January 22, 2021. However, as it has been in the past, there is a possibility that the opening of the courts will be postponed once again.

All statutory limitation time periods imposed by the Court's Order on March 16, 2020 have expired on September 13, 2020.

In response to cessation of in-person appearances, some of the POA courts introduced electronic delivery of documents and video/audio appearances.



SOME OF THE ESA PROSECUTIONS AND INVESTIGATIONS HAVE RESUMED

ESA has attended two remote Judicial Pre-Trials and continuations (four court appearances) during the months of July and August, and three matters are close to resolution. All other trial and non-trial matters are waiting to be rescheduled.

The Licensing Department in partnership with Legal Department continues to review all incoming reports and complaints and is following its enforcement processes. ESA is closely monitoring government directives and court updates and is taking appropriate steps. ESA is gradually resuming its investigations, following stringent health and safety protocols for all parties involved.



Year-To-Date Convictions (Continued)



ESA'S TOOL FOR REPORTING UNLICENCED ELECTRICAL WORK ANONYMOUSLY

ESA's online form makes it easier for you to report unlicensed individuals performing electrical work.

What do you need to do? It's easy!

- 1 Visit esasafe.com.
- 2 Click on "Report Unlicensed Activity" to fill out the fields and submit a report.
- 3 When making a report, you can choose to remain anonymous.

REPORT UNLICENSED ACTIVITY



All information submitted will be reviewed, regardless of whether or not personal information is provided. However, while you can remain anonymous, the more information you provide such as address and details on the work being done, the more likely we will be able to follow-up on your report.

Together, we can improve electrical safety in Ontario and help ensure a level playing field for the more than 8,500 licenced electrical contractors like you who operate within the provincial licensing system for electrical work.



Single Conductor Portable Power Cables and Temporary Applications

Large temporary generators are commonly used throughout the province to provide reliable power for a variety of applications from power outages to scheduled shutdowns or entertainment installations to name a few.

Often these generators which are housed in an enclosed tractor trailer, may have outputs exceeding 500 kW depending on the application. As these generators are moved from one site to another, and remain in place from a few hours to several months, the cables to connect the generator to the loads are typically provided by the generator rental company and move with the unit. To accommodate the wide variety of sites and loads, the cables used are 4/0 AWG or smaller Portable Power Cables with single pin connectors used to extend the length when required. When the applications have loads which exceed the ampacities of a single cable it is common practice within the industry to parallel the cables to increase the capacity of the feeder. This raises several questions as the code does not address these installations in section 76. In addition, other sections of the code would not address the transient nature of these installations accurately for they would not need to withstand the rigorous use over the years in service and are often operated under direct supervision of qualified personnel.

Where single conductor Portable Power Cables (PPC) are used to provide temporary power under the scope of Sections 66 or 76, and the cables are installed in a manner protecting them from mechanical damage and are readily accessible only to authorized persons, the following will be permitted

- No minimum space between individual cables is required, to maintain the ampacity allowed in Table 12A.

For installations under the scope of Section 66, Rule 66-454 2) permits single conductor PPC in a temporary installation to have a free air ampacity if different circuits are separated by a cable bundle diameter.

For installations under the scope of Section 76, Rule 76-002 1)a) refers to Section 12 conductors as wiring methods for temporary wiring. Rule 12-406 prescribes the use of PPC, Rule 4-034 refers to Table 12A for ampacity. The correction factors in Rule 4-004 for single conductor ampacities do not apply unless it is a permanent installation as per 4-034 4).



Single Conductor Portable Power Cables and Temporary Applications (Continued)

- For cables which are 1/0 AWG or larger, where cables are connected in parallel the ampacity of each group will be permitted to be based on the sum of the number of cables based on Rule 12-108 1).

For installation under the scope of Section 66 this will also be permitted, notwithstanding 66-456 3).

For temporary installations under the scope of Section 76, Rule 4-034 refers to Table 12A for ampacity. Section 12 has no restriction in combining the ampacity of single conductor PPC connected in parallel.

- In-line single pin connectors (commonly known as cam-lock connectors) can be used to join lengths together to complete a run and maintain parallel ampacity, notwithstanding 12-108 1)a). This permission will facilitate the

temporary nature of these installations where cables are supplied with standard lengths and single pin connectors, and also where cable are connected in parallel. The connectors shall be fully engaged to ensure equal division of current between parallel cables and the connections shall be kept clear of water or wet surfaces by use of appropriate elevation.

- Notwithstanding 10-614 4) a separate bond will not be required to run with each individual group. Considering the temporary nature of the installations and that cable sizes are standardized based on industry practices additional bond cables would not increase the functional purpose of the bond conductor. However, the bond conductor installed would need to have a equivalent value from table 12A not less than that provided by the conductor identified in table 16 when selecting based on the overcurrent device.

Connecting Digitally

We are very excited to announce the digital transformation of ESA's Licensing Department business processes both internally and externally.

ESA is committed to providing improved tools & guidance, reducing red tape and making it easier for our licence holders and applicants to comply with regulatory requirements. To help achieve these goals, we are proud to inform you of our Online Renewal and Virtual Proctoring Projects.



ON-LINE LICENSING RENEWAL PROJECT

Our On-Line Licensing Renewal Project is part of the Licensing Department Plan. With digital technology on our side, our goal is to provide a confidential, easy to navigate and convenient way for Master Electricians and Electrical Contractors to renew their licences.

**New online
features coming
Spring 2021**



WHAT THIS MEANS FOR YOU:

The online platform will allow MEs and LECs to renew and pay their licence application online, without the need to mail or email paperwork. We plan to make the platform available in the spring of 2021.

The success of this initiative depends on your support. We are working on a roll-out plan and will be reaching out to many of you to pilot the project. Please ensure you have a valid email address on file with us.



Connecting Digitally (Continued)

VIRTUAL PROCTORING

Prior to COVID-19, all of our Master Electrician qualifying examinations (ME Exams) were conducted in person. As you may be aware, due to COVID-19, ESA had to cancel all in-person examinations in March. As a result, we needed to provide another, safe and convenient, platform for the applicants to write the ME Exam. As with many challenges there are innovations and I am happy to share that a Virtual Proctoring initiative is underway. Our goal is to launch it before the end of this calendar year to ensure there is a permanent alternative to in-person ME exams.

WHAT THIS MEANS FOR YOU:

Applicants for the ME licence will be able to sit for the ME Exam anywhere they have access to a computer with camera and reliable internet connection. Applicants take the exam online and receive results via email, all from the safety and comfort of their own home. In-person ME Exams will continue to be held, subject to demand and public health restrictions.

We hope you share our excitement as we are opening a new page in the way licences are renewed and processed at ESA.

RISK-BASED OVERSIGHT (RBO)

THANK YOU TO OUR STAKEHOLDERS FOR YOUR CONTRIBUTIONS TO THE DEVELOPMENT OF RISK-BASED OVERSIGHT (RBO)

ESA would like to thank our Licensed Electrical Contractor community who participated in RBO consultations over the past three years through town hall meetings, council meetings, surveys and licence holder meetings. Your input helped make the launch a success.

Test Your Licensing Obligations I.Q.

Q1

You have signed a contract for large project and you don't have enough staff to complete it within the deadlines. You are considering hiring more people, should you:

- a. Hire another LEC
- b. Call your friend who you think knows a thing or two about electrical
- c. Hire and put on payroll an electrician with the appropriate CoQ

Q2

A homeowner, in an owner occupied, single-dwelling unit, has asked you to replace a pot light in the middle of the living room with a decorative 10 lamp chandelier. It's not the same total wattage or weight, but it's still a light fixture. Can you do this work without filing a notification with ESA?

- a. Yes
- b. No

Q3

My friend asked me to take out some permits for him, he's qualified but is not an LEC but I will have some oversight on the jobs he is doing, is that ok?

- a. Yes
- b. No

ANSWERS:

Question 1: a or c. As an LEC, it is not permitted to let others to work under your electrical contractor licence unless they are an employee of the company, or a licenced electrical contractor.

Question 2: b. A notification would be required. OESC 2-005 (a) outlines the requirements for when a notification is not required.

Question 3: b. This is not ok. Even though your friend is qualified, he needs an electrical contractor's licence to do the work. It is not permitted to allow another person to carry out electrical contracting work if they don't have a licence.



Test Your Licensing Obligations I.Q. (Continued)

Q4

What changes need to be reported to ESA, in writing, within five days of the change?

- a. Contact information
- b. Change of Designated Master Electrician (DME)
- c. Change of company principals
- d. All of the above

Q5

I'm thinking about posting an ad on Kijiji, am I required to post my licence number?

- a. Yes
- b. No

Q6

It is time for me to renew my Master Electrician Licence, how can I submit a new photo?

- a. Email in a digital selfie
- b. Mail in a photo taken at a passport photo services location

ANSWERS:

Question 4: d. A Notice of Change form is available at esasafe.com for you to use to update your company name, Certificate of Qualification holder, Workers Safety and Insurance Board certificate and preferred method of correspondence.

Question 5: a. Yes, LECs are required to prominently display their licence number in all correspondence, contracts and advertisements, on business vehicles and, generally, in all situations where they are communicating with the public. For more information visit <https://esasafe.com/contractors/licenced-electrical-contractor/resources/display-your-licence/>

Question 6: a or b. The photo needs to be passport style: shoulders up, no hat, no sunglasses, no face covering. Please do not send us a photo of your passport.

Licensing Corner

As the name suggests, Licensing Corner is a column by Soussanna Karas, ESA's Director of Licensing, appearing in Plugged In.



Soussanna answers questions and discusses topics touching on a variety of issues, including those related to compliance, licensing, and duties and responsibilities of MEs and LECs.

QUESTION

One of the main responsibilities of the Designated Master Electrician (DME) is personal planning and direct supervision of electrical work. Can you provide more details as to what that means?

ANSWER

Personal planning and direct supervision of electrical work is a requirement of the licence and the responsibility of the DME. A DME is integral to an LEC's business as they are responsible for compliance and safety that can have a major impact on the LEC's reputation.

Personal planning and direct supervision of electrical work may vary depending on the business, its size and specialization among other factors. Below are some examples of good industry practices:

- 1 Providing guidance and mentoring to electrical workers.
- 2 Ensure the proper training on, and use of, personal protective equipment.
- 3 Ensuring compliance with the Ontario Electrical Safety Code.
- 4 Personally overseeing electrical installations performed by all electrical workers on a jobsite.
- 5 Ensuring agendas are set for weekly site meetings, track any issues and resolve those issues in a timely manner, e.g. safety issues or feedback from workers.



Licensing Corner (Continued)

- 6 Keeping a logbook outlining day-to-day activities.
- 7 Ensuring all applicable notifications are submitted correctly and any defects corrected in a timely manner.
- 8 Ensuring workers have the required qualifications.
- 9 Ensuring that any sub-contracted electrical work performed by LECs and not unlicensed individuals.

The above are just a few examples of best practices for a DME; each LEC/DME should develop and implement a set of systems and plans to ensure that they meet these responsibilities and that the requirements are well understood within their own business. For more details, please review [LEC and DME Guidelines](#).

I WANT TO HEAR FROM YOU

Do you have a topic, suggestion or comments in relation to licensing, regulation, and regulatory requirements to the LEC and ME licence that you would like to see addressed? Please send me an email: LicensingMatters@electricalsafety.on.ca. We will select a topic from the responses we receive and feature it in the next issue of Plugged In.



Top Five Reasons to Try ESA Online Services

Have you had a chance to use ESA's Online Services since Risk-based Oversight (RBO) launched in July?

In addition to a new look and feel, you may not be aware that it has new features to improve your self-serve experience.

As we were building our new system to incorporate the information needed for RBO, we also took the opportunity to improve our system based on your feedback.

Here's what you told us and the changes we made to the system:

1 FEES ARE COMPLICATED.

We simplified the application of fees. Tell us what the work is and the system will determine the appropriate fee code

2 I NEED TO EASILY SEE MY DEFECTS.

Defects written in the past 12 months can now be viewed and downloaded in a list format. You can also view your defect ratio under the "RBO Details" tab as well as your notification volume over the past 12 months.

3 I NEED TO SEE ALL MY CORRESPONDENCE.

You can now access additional account-level correspondence such as Outcome Summary Reports and Open Notification Listings that were not previously available.

4 SEARCHING FOR A NOTIFICATION CAN BE DIFFICULT.

We have added more search options to help you find information easily.

5 I WANT TO ACCESS ESA ONLINE SERVICES WHEN AND HOW I WANT.

The new ESA Online Services portal is easily accessible through your web browser or even on your mobile device. Look for the easy-to-locate link at the top of every page on our website at www.esasafe.com.

We encourage you to look and try our new system. If you have never accessed ESA Online Services please contact the Customer Service Centre at 1-877-ESA-SAFE and we would be happy to set you up.

ESA Engages New Audience Groups in Holmes Family Twitter Chat

On Sept. 29, ESA partnered with the entire Make It Right Team (Mike Holmes Sr, Mike Holmes Jr and Sherry Holmes) and Improve Canada, Canada's largest home improvement shopping mall, to discuss all things related to home renovation during its first ever Twitter Chat.



Leveraging the hashtag #ImproveCanada, ESA participated in numerous conversations with individuals looking to do home renovations, interior designers, contractors, builders and bloggers to answer questions about home renovations and share useful electrical safety tips.

The Twitter chat was an excellent opportunity to promote the requirement of filing a notification of work with ESA for most electrical work and the importance of hiring a Licensed Electrical Contractor. ESA also shared red flags to look for when hiring a contractor to protect consumers against the potential for unknowingly hiring an unlicensed electrical contractor.

ESA shared more than 16 tweets, which resulted in 56 retweets from several high profile bloggers in addition to Improve Canada as well as the entire Make It Right Team, which extended the reach of our safety messages. The Twitter chat was very successful and an excellent way to engage new audience groups.



WORTH KNOWING

ESA Introduces “New” Licensed Electrical Contractor Recognition Award

Carney Electric Ltd. & Aecon Mining Construction Services Win New ESA Licensed Electrical Contractor Recognition Award

On September 24, at the ESA 2020 Ontario Safety Awards event, Carney Electric Ltd. and Aecon Mining Construction Services were the winners of the newly created ESA Licensed Electrical Contractor Recognition Award (LECRA) for the significant contribution they have made to electrical safety in their workplace and in their communities at large, and their ability to exceed their customer needs.



Ryan Carney, Carney Electric

The new LECRA award was presented to Ryan Carney of Carney Electric who accepted the Award on behalf his family-owned electrical business. Graeme Morris, Project Manager for Aecon Mining Construction Services accepted the Award on behalf of the organization.

Carney Electric Ltd. was recognized for providing excellent customer service and safety expertise to customers in their communities. The secret to their success is that the company exceeds customer expectations through professional services and an emphasis on safety. Their mottos are: (1) 'Do it Right and Safe' and (2) 'We Stand behind the Work We Do'. Through its participation in community initiatives such as fund-raising for the Georgetown Hospital, volunteering for town projects, Carney Electric has demonstrated that it is not only a great safety partner but also a strong community partner.

AECON MINING CONSTRUCTION SERVICES

Aecon Mining Construction Services was recognized for their exemplary safety record by embracing “safety first” as a core business value and promoting a ‘Zero Injury’ culture. Aecon Mining Construction Services supports women in trades, contributes to the Canadian Red Cross and recently supported their communities during the COVID-19 pandemic with donation of N-95 masks for healthcare workers and grocery gift cards for families in need in their Indigenous communities.

Installation of Non-metallic-sheathed Cable

Over the past year, ESA inspectors have identified more than 10,000 defects related to the installation of non-metallic-sheathed cables (NMSC). The Ontario Electrical Safety Code (the Code) contains installation requirements for NMSC as part of Section 12 of in the 500 series of rules. The Code requires that NMSC not be used for installations where the voltage exceeds 300 volts and generally limits the installation of this type of cable to buildings of combustible construction. The practices prescribed for NMSC by the Code are intended to prevent damage or injury to the cables during and after installation and address issues such as:

• Installation – Rule 12-506

Includes the proximity to heating sources intended to limit the transfer of heat by an air space of at least:

- 25 mm between the conductor and heating ducts;
- 50 mm between the conductor and masonry or concrete chimneys; or
- 150 mm between the conductor and chimney and flue cleanouts.



• Support – Rule 12-510

Including the following basic provisions:

- Cables shall be supported:
 - Within 300 mm of every box or fitting; and
 - At intervals not more than 1.5 m
 - Holes in joists or studs are considered support.



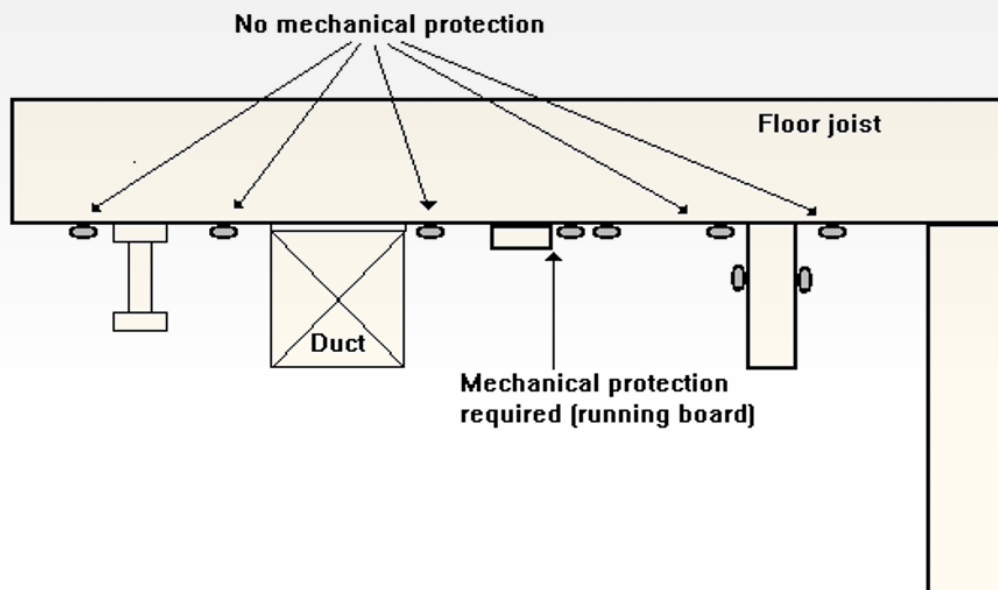
Installation of Non-metallic-sheathed Cable

(Continued)

- **Protection – Rules 12-514, 12-516 and 12-518**

NMSC installed on joists/rafters and in concealed or exposed locations shall be protected against injury:

- Where run across the upper faces of ceiling joists or lower faces of rafters in roof spaces with a clearance greater than 1 meter.
- Where run across the lower faces of basement joists.
- Where run through studs or joists where less than 32 mm from the edges.
- Protected against damage where less than 1.5 m above a floor.



See Bulletin 12-19-* *Non-Metallic-Sheathed Cables (NMSC) wiring methods* for additional information regarding the installation of NMSC.

Failure to adhere to above OESC requirements may cause electrical shock and fire hazard.



CODE CONUNDRUM

Q1

Which of the following is an acceptable location for the installation of HDPE conduit?

- a. Underground encased in concrete
- b. Underground direct buried
- c. Above ground when encased in concrete
- d. All of the above
- e. b and c

Q2

A 75kVA transformer hanged from ceiling structure in an office building is required to have a minimum 1 m working space:

- a. only on the sides provide access to conductor connections
- b. on all sides
- c. with secure footing
- d. a and c
- e. none of the above, working space only applies to floor mounted transformers

Q3

Where the dc arc fault protection is not located at the photovoltaic module, mechanical protection is required for photovoltaic source circuit conductors installed on or above buildings to protect against rodent damage.

- a. True
- b. False

ANSWERS:

Question 1: d. *All of the above (Ref: Rules 12-1250, 12-1252)*

Question 2: a. *only on the sides provide access to conductor connections (Ref: Rule 2-312)*

Question 3: a. *True (Ref: Rule 64-210(5))*



WHAT'S HAPPENING

OPEN TO ALL ESA LICENCE HOLDERS

2020 VIRTUAL LICENCE HOLDER MEETING



DATE
November 24, 2020

TIME
2:00 p.m. – 4:00 p.m.

During the meeting, you will learn about the latest developments in licensing renewals, the Master Electrician exam, enforcement of unlicensed contractors, and risk-based wiring inspections. In response to high demand, Technical Q & A is back! Make sure to submit your questions with your registration.

When you register, please take a moment to let us know specific topic or information you would like ESA to address. Your feedback is very important to us.

REGISTER NOW!

You should have received a registration link by email, or [you can visit our website here](#) for more information on how to register.



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Electrical Safety Authority



youtube.com/ElectricalSafetyESA

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WE'D LIKE YOUR INPUT

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