

Utility Advisory Council Meeting

Minutes of Meeting February 4, 2021 9:00am - 12:00pm

Electrical Distribution Safety

Utility Advisory Council Members

LDC/Owner-Operator	
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Alectra Utilities	Vicky Khamar
Burlington Hydro	
Elexicon Energy Incorporated	Arthur Berdichevsky
Festival Hydro	Jeff Graham
Hydro One	Darren Desrosiers
Hydro One - Transmission	Ajay Garg
Hydro Ottawa	Edward Donkersteeg
Kitchener-Wilmot Hydro	Greig Cameron
London Hydro	Greg Sheil
Newmarket-Tay Power Distribution Ltd.	Alex Braletic
Orillia Power	Eric Lucier
Toronto Hydro	Hani Taki
Government/Regulatory	
CSA Group	Mark Humphries
IHSA	Dean Dunn
Ontario Energy Board	Stephen Cain
General Interest	
Bell Canada/Telecom Industry	Tony Pereira
Consumer Advisory Council	Sandy Manners
OACETT	
ORCGA/Excavating Industry	
Power Workers Union	Patrick Fee

Other Attendees

Ryan Zade, Lori Gallaugher, Glenn Sturdy, Rob K (Orangeville), Chris Kleberg, Murad Hussain

ESA Attendees

Jason Hrycyshyn, Jason Lay, Nansy Hanna, Ray Yousef, Sean Burger, Allison Hawkins, Patrick Falzon, Claire Loucks, Carita Edwards, Saira Husain



1 Notice & Quorum

- The meeting had quorum

2 Minutes of UAC Meeting (October 6, 2020)

- There was a question around item #7 Swimming pools under or near existing overhead powerlines
 - LDCs are having a challenge working with customers that are installing pools or hot tubs in close proximity to distribution lines
 - ESA has been asked about issuing an order to comply to the customer at the same time a Public Safety Concern (PSC) is sent to the LDC
 - ESA creates a hazard investigation under the Ontario Electrical Safety Code (OESC) and issues defects to the owner/installer of the pool or hot tub
 - \circ $\;$ Issuing orders would have to be looked at on a case by case basis
 - USF Group has created a working group to address the issue of structures (including pools and hot tubs) being installed/built in close proximity to powerlines
 - USF has asked if ESA would like to participate in this working group
 - Patrick Falzon will represent ESA in the working group

The following motion was carried: Motion: To accept the minutes of the October 6, 2020 meeting Motioned by: Ajay Garg Second: Dean Dunn Motion carried.

- Open action items reviewed and updates on several will be provided during the meeting
- Updates to the Council Members
 - o Vicky Khamar will be the representative for Alectra Utilities
 - o Alex Braletic will be the representative for Newmarket-Tay Power

3 Introduce New Manager and Electrical Safety Engineer - Nansy Hanna

- About a year ago ESAs Regulatory department underwent a reorganization
- Ray Yousef is now the Manager of Engineering and Utility Regulations is a part of his responsibility
- Sean Burger has joined ESA and will be working in Utility Regulations

Terms of Reference, Code of Conduct, Council Expenses - Nansy Hanna 4

- The Terms of Reference have been updated for the Utility Advisory Council
- A Code of Conduct for Advisory Councils has been created and introduced at all the advisory councils
 - ESA is asking the UAC to review the Code of Conduct as ESA will be looking for Council members to sign this document
- ESA was asked how changing the minimum number of seats on the council for each group would impact quorum?
 - For General Interest and Government/Regulator/SDO we were having difficulties finding members to attend on a regular basis which would affect quorum. With the ability to remove a seat we can affect quorum
- ESA will be reviewing the membership before the June 2021 meeting and may be making adjustments based on the review
- The council will vote on the updated Terms of Reference at the June 2021 meeting
- ESA will be asking for signed Code of Conduct form from the council at the June 2021 meeting as well

UAC Survey - Allison Hawkins 5

- Not enough people completed the survey to provide feedback (30%)
- The Council survey is useful tool to provide feedback to ESA on how the council is run
- It was suggested that ESA include the survey as a mandatory requirement in the Terms of Reference to get a higher completion rate
- The question was asked who would be completing the survey
 - Council members only or
 - Council members and anyone who is not a member but regularly attends the meetings
- ESA will review the specific comments received at the June 2021 meeting

6 ESA Powerline Safety Campaign FY 2021 wrap-up - Saira Husain

- The campaign objectives and approach were reviewed
- The council got to see some of the video ads and hear some of the radio ads
- LDC Toolkit had all ESA safety messaging that could be shared by LDCs



Auditor General's Report - General presentation - Nansy Hanna 7

- ESA was audited by the Ontario Auditor General (OAG) and the report has been published
- ESAs 2020-2025 corporate strategy had identified the same areas to work on as the OAGs report
- ESA will have public consultations related to some of these items
 - Reg 22/04 specific recommendations do not require public consultation but will be brought to the UAC (#10)
 - ESA will be reporting on the progress against the recommendations
- The OAG will be reviewing ESAs progress in 2 years

Declaration of Compliance Form Update - Jason Hrycyshyn 8

- There were no objections to the proposed updates to the form
- ESA will publish the updated Declaration of Compliance form and Guideline for **Declaration of Compliance**

Verification for accuracy of Declaration of Compliance - Jason Hrycyshyn 9

- The Declaration of Compliance (DoC) has been self declaration with no external verification required
- ESA had an external auditor recommended that 3rd party verification of DoC be required
- AG required ESA to disposition this finding
- The Council pointed out that ESA has the option to verify the DoC
 - ESA has done this in the past and asked questions about the DoC
- Some LDCs have indicated that they have engaged the services of their Regulation 22/04 auditor to audit for the DoC as well
 - There is an additional cost to this
 - This also adds another layer of complexity to the Audit
- ESA was asked what the risk/potential exposure is with not having a 3rd party audit the DoC. Sections of the DoC have to be done correctly but they are more administrative checks than an actual safety impact
 - Section 3 and 10, which are included as part of the DoC can have an impact on safety
 - Section 10 Proximity would be taken care of in section 4 with the approval of plans/drawings



- The industry is going to want to know what the purpose or end goal of this change is. We have to know what was wrong with the current process that is worth adding the extra layer of complexity and cost?
- The Council requested a review of the original intent of having Sections 3, 9, 10, 11 and 12 under a DoC and Sections 4, 6, 7, and 8 reviewed by a 3rd party auditor before we can address this issue

Action 2021-01-02: A separate meeting will be scheduled to further review and discuss the options for addressing the auditor observation, interested UAC members will be invited. - Jason Lay

- 10 Flash Notice 20-38-FL: ESA Warns of stockpiling material near transformer station fences and/or under overhead powerlines - Patrick Falzon
 - ESA sent this flash notice 20-38-FL to LDCs communication department

11 Copper Theft - Patrick Falzon

- There were 2 fatalities last year related to Theft of Copper so this issue has an increased profile at ESA
- Some LDCs have seen an increase in copper theft incidents over the last year
- LDCs are looking for ways to combat copper theft though different means
 - Looking for better locks to secure equipment
 - Copper clad wiring has helped to decrease the theft of pole down grounds
- Some LDCs will inspect customer owned equipment that is used to barrier the LDCs equipment and notify the customer when there are issues
 - If a customer refuses to maintain their enclosure LDCs will look to get ESA involved
- ESA issues the PSC because even though the barrier is not owned by the LDC the equipment inside is owned by the LDC. ESA is looking for the LDC to address this with the customer. If the customer is refusing to make the necessary repairs then there are terms in the conditions of service that would give the LDC the ability to enforce repairs being made
 - o Does ESA have any information on how the OEB regards acting on this provision of the conditions of service?
- For ESA to issue orders against a customer each situation would have to be reviewed
- It would be nice to have a document that outlines the entire process and who is responsible for what parts and how to get these issues resolved



- LDCs would like to see ESA more involved with the customer on these issues as ESAs involvement helps in getting the barriers and equipment fixed

12 Vault Access - Tamper-Resistant - Patrick Falzon

- ESA is asking LDCs to review the necessary standards related to vault access and tamper-resistant requirements particularly attaching the sliding bolt to the door and to make sure their access doors and vents for vaults housing their electrical equipment meets these standards
- New CSA 22.3 No.7-20 Underground Systems has tamper-resistant requirements for vault access doors. Currently the new edition is not enforced.
- ESA will issue a public safety concern for existing vault doors that are easily accessible

13 Drilling of Pipe Docks in Proximity of Distributor-Owned Submarine Conductors - Jason Hrycyshyn

- The proximity of underwater infrastructure (such as docks and mooring anchors) to submarine cables may not be handled by the CSA Underground Standard, if it does the current clearance is 30cm.
- There is an issue with infrastructure being too close to submarine cables and LDCs would like to see greater clearances to electrical lines
- The Council advised it would be good to update the Underground Standard to include a greater clearance (e.g. 3m) to submarine cables
- ESA will pursue a greater clearance with the Technical Committee for the Underground Standard
- Thought needs to be given as to how to communicate and enforce this

14 Equipment Approvals - Type Tests vs Routine Tests - Jason Hrycyshyn

- Regulation 22/04 Auditors asked ESA to provide a bulletin to clarify the Section 6 requirements, regarding equipment approval, specifically the role of type tests and routine tests (or similar naming conventions)
- This bulletin is targeted to the competent person that would be approving the use of equipment on the system. The bulletin clarifies that type tests (or similar) are typically required to approve equipment. Typically, routine tests alone do not satisfy the requirement for approval
- It was agreed that the bulletin could be published



15 HV Customer Letter - Patrick Falzon

- The draft letter for customers that own high voltage equipment was reviewed
- ESA has asked to receive any feedback by Feb 11/21

16 Meter Failures - Survey Update - Patrick Falzon

- An update on the meter failure survey was provided
- There will be follow-up from ESA. There is an internal group that is looking in to this to provide next steps.

17 **Guideline Review - Excavation in the Proximity of Underground Distribution** Lines - Version 3.0 - Jason Hrycyshyn

- There was an item about reasonable locates within a building that does not appear to be included in the document
 - o Outlines that if a LDC doesn't locate their lines within the footprint of a building then the locate needs, at a minimum, to advise the excavator of this
 - Clarify the footprint of the building vs private property. Some LDCs locate their lines on private property but may not locate within the footprint of a building
 - This missing information was agreed to be added to the Guideline prior to publication.
- There was an incident a few years ago where a plumber was moving a toilet in a building and jackhammered the floor and contacted a primary line.
 - o How do you communicate the need for locates inside a building to a profession like plumbing?
- Some municipalities allow private lines to be run on the public right-of-way. Who should be locating these customer owned cables
 - This was not part of the discussion
- LDCs may have short runs of customer owned cables between the property line and a pole. Some LDCs will locate this cable and indicate the potential for other customer owned line on the private property

18 Bulletin 2-28-*: Application of OESC to licensed distributor, transmitter and generators - Ray Yousef

- ESA was asked what is driving this bulletin
 - There is confusion with installations...large PV installation, wind farms, nuclear installations that feel they are not required to meet the OESC, when they do fall under the OESC
- The bulletin need to be more clear that this applies to everything downstream of the demarcation point.
- If generation assets fall under the distribution system per the OEB then it falls under Regulation 22/04, and if not it falls under the OESC as per the existing guideline
- There is confusion on the need to include the DSC. If this is more related to the generators how do the distributors come into play?
 - This is targeted to licensed generators. Under the distribution system code and TSC you still require a connection authorization from ESA.
- ESA will be sending this bulletin to the OEB for feedback
- ESA was asked if amending generation licences to specify that all installation require ESA authorization has been explored?
 - ESA will explore forwarding this suggestion to OEB for their consideration
- ESA will communicate with the UAC the feedback received from the OEB

Action 2021-01-01: Bulletin 2-28-x: Application of OESC to licensed distributor, transmitter and generators. ESA will communicate the feedback received from the OEB with the UAC so further comments can be provided. – Ray Yousef

19 OEB Scorecard - Jason Hrycyshyn

- The Scorecard information should be received by the end of this month
- If any of the contacts that receive this information need to be update please email Utility.Regulations@ElectricalSafety.on.ca to advise of these updates

Motion: To adjourn the meeting

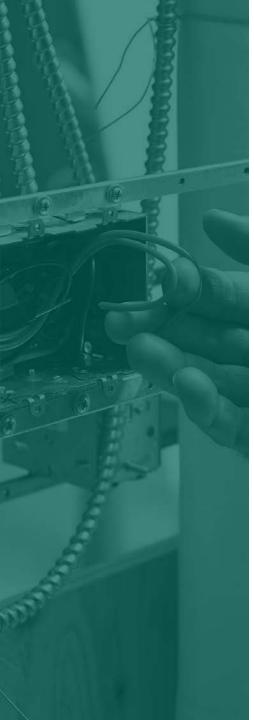
Motioned by: Hani Taki

Second: **Darren Desrosiers** January, 2021

Auditor General 2020 Annual Report: Value for Money



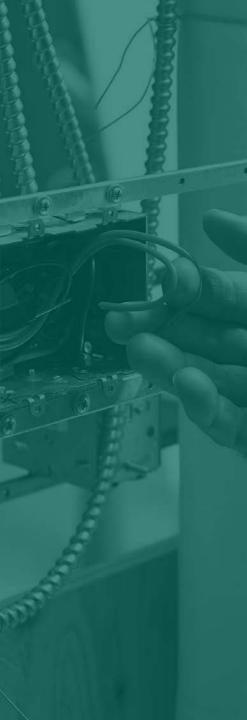
Electrical Safety Authority



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Ontario Auditor General – Annual Report

- On December 7, 2020, the Ontario Auditor General (OAG) released her Annual Report – Value for Money.
- External Statement with the link to the Report was published on the newsroom section on December 7, 2020.
- We are proud that the Auditor General noted electrical safety in the province has improved over the last 10 years. Thank you all for your contributions.
- AG report includes **25 recommendations** and identifies areas for improvement. They span across four regulations ESA administers.



Auditor General 25 Recommendations

ESA's **Corporate Strategy 2020-2025** has already identified the same areas and we are working on it.

Overall, four main areas:

- 1. Seek increases in operational efficiencies
- 2. Improvements to target the underground economy
- 3. Continuous improvements in oversight of electrical contractors and master electricians
- 4. Review product safety regulation to adapt to online market environment

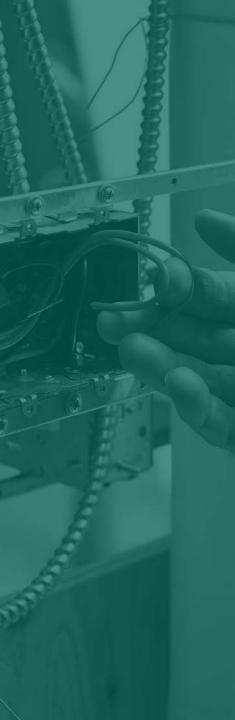
Several of the recommendations are the responsibility of the Ministry of Government and Consumer Services (MGCS) and some are joint recommendations.



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Next Steps - Responding to OAG & Process

- ESA is developing actions to address these recommendations.
- We are working with the Ministry on this activity.
- Our plan will be published on our website at the end of February.
- ESA will publically report on its progress on the recommendations on our website so you can keep track.
- In 2 years (2022), ESA will be re-audited by the OAG



Public Consultations

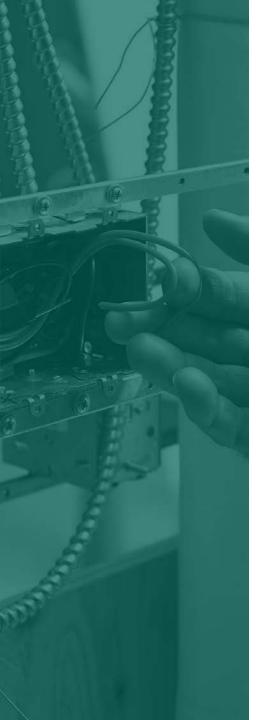
- Gathering stakeholder feedback and advice is important to ESA
- ESA is planning to undertake a number of public consultations to seek input on our response to some of the OAG's recommendations
- Timing is contingent upon government direction and Board approval of the action plan











Recommendations

Details

8

1	To enable the resources of the Electrical Safety Authority (ESA) to be used more efficiently and effectively to improve public electrical safety, we recommend that the ESA:
	• refine and further develop its new risk-based inspection approach so that it will result in fewer inspections of low-risk installations and more inspections of higher- risk installations;
	 set a target for the reduction of low-risk inspections and publicly report on its performance against this target; and wherever possible without jeopardizing public electrical safety, conduct its inspections remotely
2	To enable the resources of the Electrical Safety Authority (ESA) to be used effectively and efficiently to improve public electrical safety, we recommend that the ESA: • review the fees the ESA charges for homeowner installation inspections with an aim to maintain public compliance with electrical safety laws; • revisit the fee model as a whole to identify where fees can be reduced; and • identify and implement changes to streamline its operations and reduce operational costs.
3	To enable the resources of the Electrical Safety Authority (ESA) to be used more effectively and efficiently to improve public electrical safety, and to avoid any perceived or actual conflict of interest, we recommend that the ESA: • negotiate with the union representing inspectors to more closely align its reimbursement policy with the Ontario government's Travel and Meal Reimbursement Directive to allow for meal reimbursements; • as soon as possible provide its inspectors with additional guidance on reasonability of meal expenses; and • disallow any reimbursements for meals inspectors have with licensed electrical contractors.
4	To demonstrate and confirm that the Electrical Safety Authority (ESA) operates economically while improving public electrical safety, we recommend that the ESA implement the changes needed to follow all the requirements of the Ontario Government's Procurement Directive as soon as possible.
5	To improve the public electrical safety inspection process and confirm that Electrical Safety Authority (ESA) inspectors are checking installations in accordance with its new risk-based inspection policy, we recommend that the ESA: • put controls in place to ensure inspectors are not over-inspecting simple installations and under-inspecting more complex installations; and • stop issuing certificates of inspection for installations that require a site visit but are not inspected.
6	To help maintain public electrical safety by conducting thorough and consistent inspections of electrical installations, we recommend that the Electrical Safety Authority (ESA): • change its inspection scheduling process to ensure that its inspectors are given the time needed to properly conduct all assigned inspections, and reduce the number of rescheduled inspections required that result from cancellations; and • notify people if their scheduled inspections are cancelled.

Recommendations (cont.)

Details

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- To help maintain public electrical safety through thorough and consistent inspections of electrical installations, we recommend that the Electrical Safety Authority: • develop inspection standards and checklists as soon as possible;
 - make its inspection standards and checklists publicly available; and
 - establish a monitoring process to ensure that the new inspection standards are being followed.
- 8 To protect the public from fire, electrocution and other possible harm from unsafe installations, we recommend that the Electrical Safety Authority:
 - establish one clear policy on when follow-up must be conducted, addressing both regular and periodic inspections;
 - test its computer systems for correct functioning, and accurate processing and display of all inspection information; and monitor that inspectors are doing follow-up inspections within the set timelines and that unsafe installations are fixed within the required time.
- 9 To enhance public electrical safety, we recommend that the Electrical Safety Authority (ESA) verify that industrial facilities that switch from periodic to regular inspections are notifying the ESA of all of their electrical installations.
- 10 To enhance public electrical safety, we recommend that the Electrical Safety Authority (ESA) promptly act to implement all of the action items from the consultant reviews of the ESA's oversight of local distribution companies (distributors) that have not yet been implemented.
- To ensure regulatory inspections are not negatively impacted by general inspection services that are not required by law, we recommend that:
 the Ministry of Government and Consumer Services assess the appropriateness of the Electrical Safety Authority conducting general inspection services to the public and stop them immediately if it finds this is inappropriate; and
 - the Electrical Safety Authority follow up on any instances of non-compliance with the Ontario Electrical Safety Code in a timely manner, if general inspection services continue to be offered to the public.
- 12 To improve compliance with electrical safety laws and reduce the number of illegal electrical installations, we recommend that the Ministry of Government and Consumer Services together with the Electrical Safety Authority and industry stakeholders:
 - reassess the current restrictions in Ontario where electrical work for the public can only be conducted by licensed electrical contractors to determine if other arrangements are possible for certified electricians and master electricians; and
 - determine whether certified electricians or master electricians can be allowed to perform lower-risk installation work.
 - We also recommend the ESA in consultation with industry stakeholders review and establish reasonable licensing and inspection fees to address the illegal electrical installation market.

Recommendations (cont.)

Details

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- 13 To reduce the occurrence of illegal electrical installations, we recommend that the Ministry of Government and Consumer Services together with the Electrical Safety Authority work with municipalities to determine whether the ESA inspections can be incorporated into the building permit assessment process.
- 14 To enhance public awareness about the risks associated with hiring unlicensed electrical contractors, we recommend that the Electrical Safety Authority: • re-evaluate its approach to public awareness campaigns to better inform the public on the risks of hiring an unlicensed contractor; and
 - educate the public on the differences between a certified electrician, master electrician, and a licensed electrical contractor.
- To significantly reduce widespread illegal electrical installations, we recommend that:
 the Ministry of Government and Consumer Services enable the Electrical Safety Authority (ESA) to directly issue monetary fines; and the ESA dedicate sufficient resources to review and follow up on all reported cases of illegal electrical installations.
- 16 To strengthen its Master Electrician licensing process, we recommend that the Electrical Safety Authority more frequently update the Master Electrician exam with new questions.
- 17 To enhance public electrical safety, we recommend that the Electrical Safety Authority work together with the Ministry Government and Consumer Services to: • implement a continuing-education requirement as a condition of master electrician licensing; and
 - work with the body that oversees the certification of electricians to discuss implementing a requirement for continuing education
- 18 In light of the wide availability of uncertified electrical products online, the Ministry of Government and Consumer Services, together with the Electrical Safety Authority and industry stakeholders, should review the current electrical product safety regulation and accordingly, adapt it to the current online market environment.

Recommendations (cont.)

Details

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- 19 To enhance electrical safety, we recommend that the Electrical Safety Authority:
 - conduct a review, and develop and implement a plan to target the sale and use of unsafe electrical products in Ontario; and
 - dedicate sufficient resources to review and follow up on all reported cases of unsafe electrical products being sold in Ontario.
- 20 To be more responsive to the public in providing timely information on electrical safety, we recommend that the Electrical Safety Authority:
 - train staff to respond accurately and completely to all calls with technical questions and assign a sufficient number of employees to this responsibility;
 - review its policy to increase disclosure of information to callers about licensed electrical contractors' past performance and licence status; and
 - review the disclosure provided with respect to licensed entities by Technical Safety BC, and work with stakeholders to identify categories of additional information to be publicly disclosed on licensed electrical contractors.
- 21 To provide Ontarians with complete and transparent information about the state of electrical safety in Ontario, we recommend that the Electrical Safety Authority annually report the results of its investigations of electrical safety incidents, its operational information and complete product safety information after it has been reviewed for accuracy.
- 22 To support the Electrical Safety Authority (ESA) in representing the interests of consumers, we recommend that the ESA replace the CEO Board position with a member position representing the interests of consumers.
- 23 To demonstrate a transparent Board appointment process, we recommend that the Electrical Safety Authority (ESA):
 - establish a documentation and record-keeping process for the appointment of new Board members;
 - establish a process to ensure Board members are independent from the ESA's management; and
 - publicly disclose the salaries of all its Board members.
- To ensure that Electrical Safety Authority (ESA)'s non-mandatory services are not interfering with its responsibilities under Part VIII of the *Electricity Act, 1998* and the *Safety and Consumer Statutes Administration Act, 1996*, we recommend that the ESA work with the Ministry of Government and Consumer Services to more precisely define and agree on the scope and level of review work that is required to be performed when engaging a third-party consultant.
- To confirm that the Electrical Safety Authority (ESA) is meeting its mandate to improve public electrical safety in a cost-effective way, we recommend that the Ministry of Government and Consumer Services:
 - establish outcome measures and performance targets for the ESA that focus on cost efficiency and safety improvement in the electricity sector;
 - on a regular basis, assess the ESA's performance against these targets; and
 - take corrective actions when the ESA does not achieve the targets.

February 4, 2021

Declaration of Compliance Form Guideline - Review

Information

Utility Advisory Council Jason Hrycyshyn



Declaration of Compliance Form Guideline Review

Version 2.1 was required to address an ESA internal Audit finding, which was drafted to reduce the number of Declarations of Compliance that are submitted to ESA without a appropriate sign-off.

Revision Highlights

- 1. Added the following "Note" to the Guideline.
 - Note: The reference to a "director" is a member of the board of people that manages or oversees the affairs of the distributor.
- 2. Added a "Checkbox" to the template form.
- 2 UAC Presentation | February 4, 2021

Declaration of Compliance Form Guideline Review

Inserted checkboxes. Attempting to draw attention to the "member of the board of directors".

	Please Check 1 or more Boxes Below	
Signature	- 🗆	Officer of the Distributor
Title or Professional Designation	- 	Director of the Distributor (member of the board of directors)
Date	- []	Professional Engineer



Contact Us

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Visit our website: <u>esasafe.com</u> Visit us on social media:



@homeandsafety



@ElectricalSafetyAuthority



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Declaration of Compliance Form
Guideline Review

Inserted checkboxes. Attempting to draw attention to the "member of the board of directors".

Date (me	icer of the Distributor
	ector of the Distributor nber of the board of directors)
	fessional Engineer



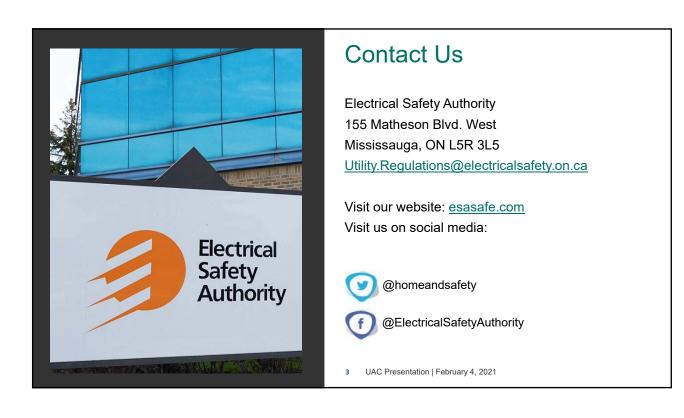


Verification for Accuracy of Declaration of Compliance

ESA had an External Auditor come in and they

- **1. Observed** that "... no objective third party review of the Declaration of Compliance for the majority of the filings."
- **2. Recommended** that "The ESA should consider requiring distributors to conduct an objective review and validation of declaration processes by independent internal or external auditors to ensure consistency, accuracy, and reliability of declaration of compliance findings. Specifically, the ESA may consider expanding the audit scope for the 3rd party to include this review."

ESA is seeking feedback from the Council on reviewing the Observation and Recommendation. 2 UAC Presentation | February 4, 2021



Utility Advisory Council February 4, 2021

Flash Notice-Stockpile Near Overhead Powerlines Information

Patrick Falzon, C. Tech Powerline Safety/Code Specialist Powerline Safety Group Electrical Safety Authority



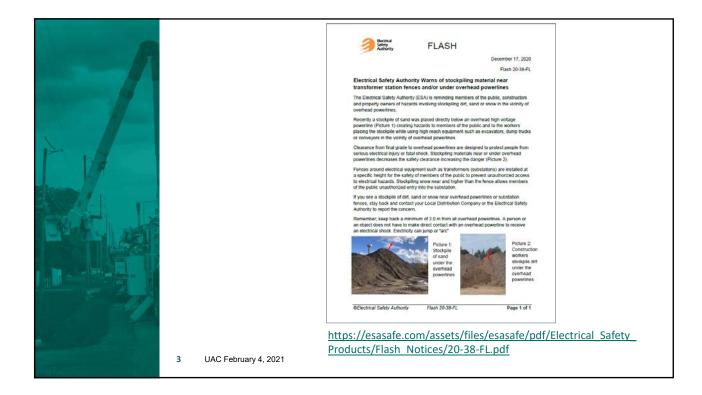
Flash Notice-Stockpile Near Overhead Powerlines

Background

- ESA has seen an increase on the number of sites where stockpile of dirt or snow has been placed under overhead powerlines
- Other concerns stockpiling snow adjacent to fenced substations
 defeating security
- ESA's Communications Department sent Flash Notice link to LDC's Communications Department for distribution to social media feeds
- ESA reaching out to Association of Municipalities Ontario to distribute to their members- 444 Municipalities



Electrica







FLASH

December 17, 2020

Flash 20-38-FL

Electrical Safety Authority Warns of stockpiling material near transformer station fences and/or under overhead powerlines

The Electrical Safety Authority (ESA) is reminding members of the public, constructors and property owners of hazards involving stockpiling dirt, sand or snow in the vicinity of overhead powerlines.

Recently a stockpile of sand was placed directly below an overhead high voltage powerline (Picture 1) creating hazards to members of the public and to the workers placing the stockpile while using high reach equipment such as excavators, dump trucks or conveyors in the vicinity of overhead powerlines.

Clearance from final grade to overhead powerlines are designed to protect people from serious electrical injury or fatal shock. Stockpiling materials near or under overhead powerlines decreases the safety clearance increasing the danger (Picture 2).

Fences around electrical equipment such as transformers (substations) are installed at a specific height for the safety of members of the public to prevent unauthorized access to electrical hazards. Stockpiling snow near and higher than the fence allows members of the public unauthorized entry into the substation.

If you see a stockpile of dirt, sand or snow near overhead powerlines or substation fences, stay back and contact your Local Distribution Company or the Electrical Safety Authority to report the concern.

Remember; keep back a minimum of 3.0 m from all overhead powerlines. A person or an object does not have to make direct contact with an overhead powerline to receive an electrical shock. Electricity can jump or "arc"



Picture 1: Stockpile of sand under the overhead powerlines



Picture 2: Construction workers stockpile dirt under the overhead powerlines

Utility Advisory Council February 4, 2021

Copper Theft

Patrick Falzon, C. Tech Powerline Safety/Code Specialist Powerline Safety Group Electrical Safety Authority



Copper Theft

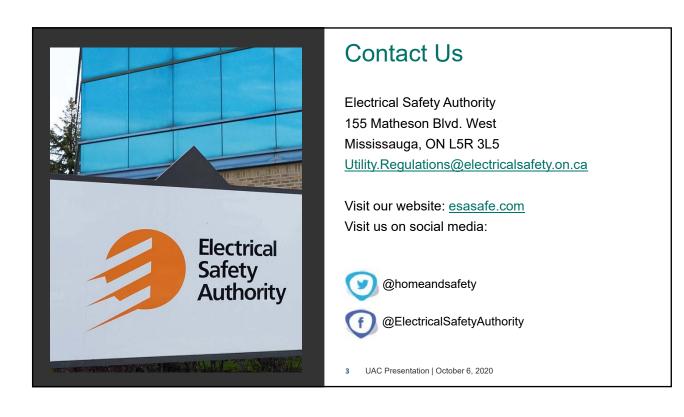
Background

- Presented at the October 6,2020 meeting
- ESA has seen an increase of copper theft issues identified through the public safety concern process
- Action item was for the LDC UAC members if they seen an increase as well?





2 UAC February 4, 2021



Utility Advisory Council February 4, 2021

Vault Access- Tamper Resistant Information

Patrick Falzon, C. Tech Powerline Safety/Code Specialist Powerline Safety Group Electrical Safety Authority



Vault Access- Tamper Resistant

Background

- With the increase in copper theft, LDC's may want to review their standards relating to sliding bolts for transformer vault doors
- Fasteners used to attach sliding bolts can easily be removed with the use of common tools
- Allows easy access to vaults no longer requiring locks to be cut.

2 UAC February 4, 2021



ectrica



Vault Access- Tamper-Resistant

ESA's expectations

- LDC's may want to inspect the security of all access doors and vents for vaults housing their electrical equipment
- Revise standards to include tamper-resistant access

3 UAC February 4, 2021



Vault Access- Tamper Resistant

As per CSA 22.3 No. 7:20 Underground Systems

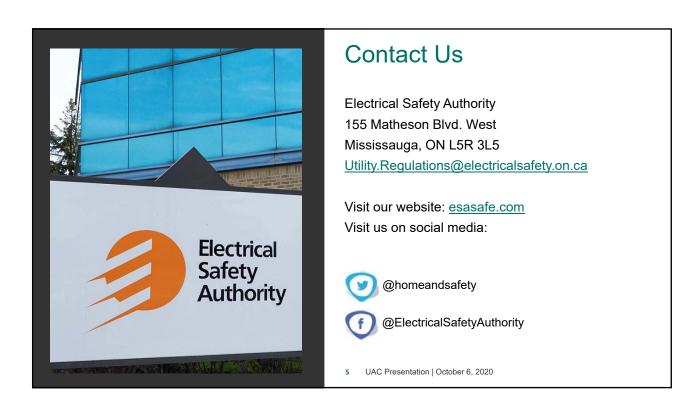
Tamper-resistant — the state in which, in any normal operating condition, contact with live parts cannot be made either directly or by means of any conductive material, with or without the use of such common tools as might be accessible to children. It does not imply proof against any deliberate actions of adults and children.

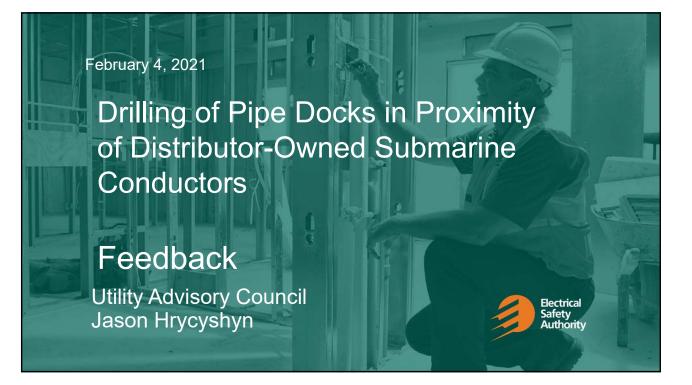
9.7 Vault doors, subsurface box covers, and subsurface chamber covers

9.7.1 Subsurface box and chamber covers shall be designed or restrained so that they will not fall into subsurface chambers and boxes or protrude far enough to contact cables or equipment. Covers shall be over 45 kg (100 lb) or otherwise be tamper-resistant. Vault doors shall be tamper-resistant.

Although 2020 edition is not enforced, ESA will issue a utility public safety concern for access that does not meet the tamper-resistant requirements.

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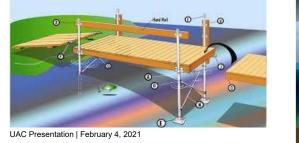




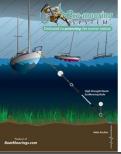
Drilling of Pipe Docks in Proximity of Distributor-Owned Submarine Conductors

ESA is proposing to the Underground Systems – Technical Committee (C22.3 No.7), a revision to Docks and Moorings being installed in proximity to electrical conductors.

ESA recently looked into a few Proximity issues as it relates to pipe docks.



2



Drilling of Pipe Docks in Proximity of Distributor-Owned Submarine Conductors

ESA was asked by an Electrical Distributor to look into the application of Regulation 22/04, Section 10 (Proximity) with respect to a customer-owned pipe dock that was installed very close to their submarine conductor.

ESA is interpreting the separation requirement of the standard to be located within Table 2 of C22.3 No.7.

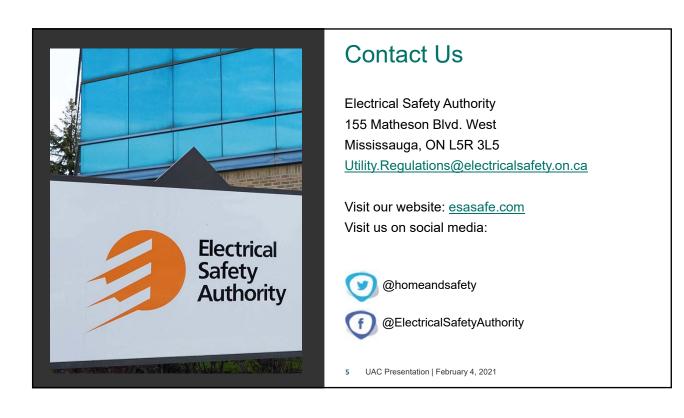
ESA's current interpretation is that for submarine cable installations in proximity to dock infrastructure (e.g. pipe docks, helical anchors) need only have a 300mm horizontal clearance. That could be debated as the docks and perhaps other installations may not be considered permanent type structures.

UAC Presentation | February 4, 2021

Drilling of Pipe Docks in Proximity of Distributor-Owned Submarine Conductors

ESA is looking to clarify if docks are covered and seek to include adequate separation from submarine conductors. For example, 2m may be deemed adequate under a title of Underwater portion of structures installed over or in water (e.g. docks, mooring).

Note: I contacted Ontario One Call and was informed that a locate is required even if the ground being broken is underwater.





Equipment Approval – Industry Standards Recognized by ESA

ESA is proposing issuing a new bulletin, at the request of the Auditors of Regulation 22/04.

Auditors continue to have discussions and findings regarding, what *Certified Test Reports* are used when utilizing the "Industry Standards Recognized by ESA" option to approve equipment.

Regulation 22/04, Section 6.

Equipment Approval – Industry Standards Recognized by ESA

The primary concern is that "Routine Tests" and not "Type Tests" (or equivalent) are being provided to Electrical Distributors. The Electrical Distributor's competent person is, at times, approving the equipment with only this information.

Review

- "Type Tests" can prove the ratings and design characteristics of the equipment.
- "Routine Tests" can demonstrate operational performance and safety on each piece of equipment manufactured.

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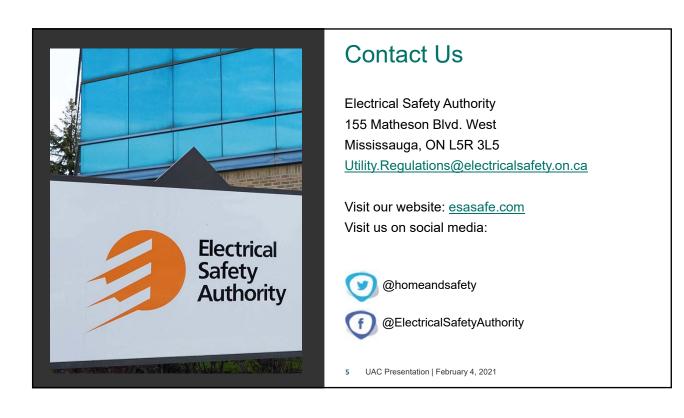
Equipment Approval – Industry Standards Recognized by ESA

The Main Purpose of the Bulletin is to stress that when a standard has "Type Tests" (or equivalent), these qualify for approving equipment to Section 6 and "Routine Tests" typically do not.

Notes:

- "Type Tests" are referred to by different names in different standards types, such as transformers, cables, etc...
- At minimum the mandatory "Type Tests" shall be included.
- The Bulletin notes how "Type Test" data from equivalent equipment units are acceptable.

"Routine Tests" alone are not typically acceptable to demonstrate compliance with Regulation 22/04.





Date xx, 20xx

Place customer's address here

We are writing this letter to inform you that your Local Distribution Company xxxxxx has identified the electrical equipment used to supply power to your property/building namely the high voltage substation is customer owned. As the property owner you have a regulatory obligation under the Ontario Electrical Safety Code (OESC) to conduct regular maintenance and repairs of all electrical distribution systems to ensure they are in safe and proper working order as per Rule 2-300 General requirements for maintenance and operation.

As part of the Conditions of Service with your Local Distribution Company, you also have an obligation for the ongoing maintenance and good repair of your electrical service equipment. As a customer, you are required to repair or replace electrical equipment that you own within a reasonable time that may affect the Local Distribution Company's distribution system to avoid the disconnection of your service.

The ESA is recommending engaging the services of a Licensed Electrical Contractor who specializes in this type of work.

https://findacontractor.esasafe.com/

The Substation Maintenance Condition Report can be found on ESA's website by following the below link.

https://esasafe.com/assets/files/esasafe/pdf/Forms/Substation-Maintenance-Condition-Report.pdf

Some Information About the Electrical Safety Authority

The Electrical Safety Authority operates as a delegated authority on behalf of the Province of Ontario in accordance with Part VIII, section 113 of the *Electricity Act, 1998* and the *Safety and Consumer Statutes Administration Act, 1996*, S.O. 1996, c.19.

As part of its mandate, the ESA is given the authority to enforce The Ontario Electrical Safety Code, Ontario Regulation 164/99, including prosecution of offenders under the Provincial Offences Act, as it pertains to electrical safety in Ontario.

Utility Advisory Council February 4, 2021

Customer Owned Equipment Feedback

Patrick Falzon, C. Tech Powerline Safety/Code Specialist Powerline Safety Group Electrical Safety Authority



Customer Owned Equipment

Background

- Presented on June 4, 2020 UAC meeting
- Not all customers are aware that the electrical equipment is under their care and control
- Maintenance of the equipment may not be considered

Action

 ESA to develop messaging for LDC's to provide to their customers to identify the presence of customer owned HV equipment

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Customer Owned Equipment

- Draft letter was sent as pre-read material
- · Looking for feedback from Council
- Submit comments to <u>Utility.Regulations@electricalsafety.on.ca</u> by February 11,2021 to finalize

3 UAC February 4, 2021

3 Bectrial Safety Authority

Date xx, 20xx

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are writing this letter to inform you that your Local Distribution Company eccessor identified that your propertybuilding incorporate high voltage costormer owned tricial equipment or supporting infrastructure. As the property normer you have a ulatory obligation under the Oratino Electrical State(Code (OESC) to conduct dur manimumcan enforced regars of all electrical systems to ensure they are in safe an oper working order as per Rule 2-300 General requirements for maintenance and ration.

a part of the Conditions of Services with your Local Distribution Company, you also awa in obligation for the oncyclin partitements and good repair of your electrical fratarutanes. Any identified damaged or failing components need to be addressed this a reasonable time as as as to del affect the local Distribution Company's distribution statements and sold repair to avoid the interruption of power(of your project/publicity). The ESA is recommanding engaging this services of a Licensed Electrical Contractor to expanding the services in a Licensed Electrical Contractor to expanding the services in a Licensed Electrical Contractor to expanding the services in a Licensed Electrical Contractor to expanding the services in a Licensed Electrical Contractor to expanding the services in a Licensed Electrical Contractor to expanding the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in a Licensed Electrical Contractor to the conditions in the local and the services in the local and the serv

lacontractor, esasafe.com/

The Substation Maintenance Condition Report which outlines some of the components which need to be evaluated can be found on ESA's website by following the below link. The Usersatile compares the search of the Component Condition-Maintenance-Conditiontion of the Component Condition-Maintenance-Condition-

e Information About the Electrical Safety Authorit

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Contact Us

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Visit our website: <u>esasafe.com</u> Visit us on social media:



) @homeandsafety



4 UAC Presentation | October 6, 2020

Utility Advisory Council February 4, 2021

Meter Failures-Survey Update

Patrick Falzon, C. Tech Powerline Safety/Code Specialist Powerline Safety Group Electrical Safety Authority



Background

- Festival Hydro presented at the October 6, 2020 meeting
- Failures they have seen when used in 347/600V applications
- · ESA's action item
 - Survey LDC's across the Province if they have had the same issues with the same meter



ectrica

2 UAC February 4, 2021



Meter Failures-Survey Update

Sent the following Survey on November 18, 2020

During the last Utility Advisory Council held on Oct 6, 2020, ESA took on an action item to email all the LDC's to conduct a data survey and your input is appreciated.

The purpose of the survey is to collect information regarding the use and voltage application of the ltron Sentinel SS4S1D Form 16S in Ontario.

The information gathered in this survey will be maintained in accordance with the ESA's Access and Privacy Code.

1. Does your Distribution Company have this particular model in your service territory? (YES or NO)

- 2. If yes what is the voltage application and how many:
 - a.120/208 V
 - b. 347/600 V or
 - c. in stock but not in use?

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Meter Failures-Survey Update

Results

- All but one LDC's responded
- Three LDC's use for 347/600V applications totalling 870 meters
- Three LDC's use for 120/208V applications totalling 608 meters

⁴ UAC February 4, 2021

