



Auditor Debrief

Web Version

November 10, 2021



Electrical Distribution Safety

Disclaimer

The information in this presentation was prepared as discussion points for the auditor meeting. In some cases more information may be required to understand the issue fully as discussed during the meeting. For more information please contact

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AGENDA

1. Review of 2020 Audit results
2. Key 2020 Audit Findings
3. Changes to the CSA Standards
4. Building Broadband Faster Act, 2021
5. 2021 Questions & Issues / Auditor Feedback
6. Focus of 2021 Audits
7. Other Information
 - a) Bulletins
 - b) Other Issues

Summary of Audit Findings for 2020

Total of 62 LDC Audit reports (with 1 no submission)

- 24 completed (Nov 2, 2021).

59 LDCs - Full Compliance ('18-50), ('19-54).

1 LDC with 1 Non-Compliance findings

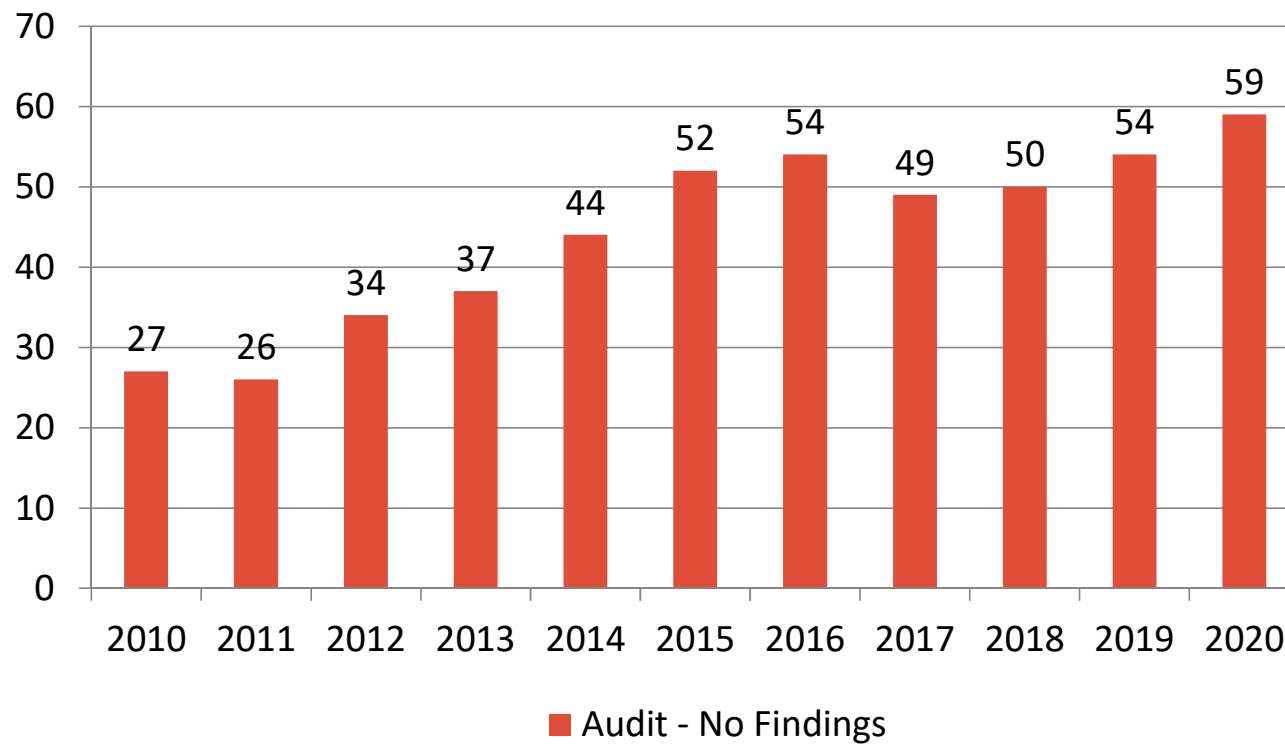
- Small LDC – 3rd Party field changes

2 LDCs - Needs Improvement only

3 LDCs with only one finding (NC or NI)

0 LDCs with two or more findings (NC or NI)

Summary of Audit Findings Life to Date



Section 4/5 Audit Findings

Section 4/5 – Safety Standards

Nothing appears to be common.

Section 6 Audit Findings

Section 6 – Approval of electrical equipment

Nothing appears to be common.

Power Transformers and their Certified Test Reports. “Type Test” are required, more information is available in bulletin DB-01-21 entitled “**Equipment Approval — Industry Standards Recognized by ESA**”

Section 7 Audit Findings

Section 7 – Approval of plans, drawings and specifications for installation work

BBFA – Discussed below, is expected to be an area of focus.

3rd Party work issues:

Work doesn't reference the approved standards. This may relate to confusion/misuse of "materially insignificant". (UAC Discussions)

Confirmation of software approval for non-linear design (e.g. SPIDAcalc and PLS-CADD)

Section 8 Audit Findings

Nothing appears to be common.

CSA STANDARDS - REGULATION 22/04

HIGHLIGHTING CHANGES IN CSA STANDARDS

C22.3 No.1	Overhead
C22.3 No.7	Underground
C22.3 No.11	Maintenance

No.1 and No.7 – Amendments to address Climate Change. More information in the document [An Assessment of the Impact of Climate Change on Climatic Design Data in Canada](#).

CSA STANDARDS - REGULATION 22/04

C22.3 No.1 Overhead

CSA STANDARDS - REGULATION 22/04

2022 Version is an Amendment to the 2020 version

This is known as the “Climate Change” amendment.

1. Flooding;
2. Weather Loading;
3. Vegetation (Fires / Wild Fires);
4. Permafrost (mostly Transmission);
5. Ice Mitigation.

CSA STANDARDS - REGULATION 22/04

C22.3 No.7 Underground

CSA STANDARDS - REGULATION 22/04

2022 Version is an Amendment to the 2020 version

This is known as the “Climate Change” amendment.

1. Flooding;
2. Ground Movement.

CSA STANDARDS - REGULATION 22/04

C22.3 No.11 Maintenance

CSA STANDARDS - REGULATION 22/04

Exemption for Electrical Utilities from Z463-18 (Maintenance of Electrical Systems)

1.3 Application - While it can be applied by organizations of any type or size, at this time this Standard does not cover

a) installations of communications equipment under the exclusive control of communications utilities located outdoors or in building spaces used exclusively for such installations; and

b) installations under the exclusive control of an electric utility when such installations

- i. consist of service drops or service laterals, and associated metering;
- ii. are located in legally established easements or rights-of-way designated or recognized by public service commissions, utility commissions, or other regulatory agencies having jurisdiction for such installations; or
- iii. are on property owned or leased by the electric utility for communications or for metering, generation, control, transformation, transmission, or distribution of electric energy.

CSA STANDARDS - REGULATION 22/04

OEB DSC Appendix C – Minimum Inspection Requirements

Summary of Distributor Requirements

Inspections consist of patrols or simple visual inspections to identify obvious structural problems and hazards. In cases where a patrol notices that a problem exists, it is to carefully observe and record the equipment's condition.

Inspections are on a “Time-based Approach” and dependent on:

1. Location (Rural vs Urban); and
2. Type (Distribution Stations, Poles, Vegetation, etc...).

CSA STANDARDS - REGULATION 22/04

Maintenance – actions taken to keep an asset in, or restore it to, a specified condition

General Inspection – identification of risks and hazards for planned corrective action

Detailed Inspection – a thorough review of the asset to identify state of deterioration, which may include visual review, measurements, testing, or taking samples, and may prompt corrective action

Time-based Approach – frequency of maintenance activities of the asset(s) based on a fixed cycle time

Risk-based Approach – frequency of maintenance activities of the asset(s) based on a risk assessment

BUILDING BROADBAND FASTER ACT (BBFA)

The Ontario Government is leading an initiative to ensure that all Ontarians have access to Broadband (from wireline) by 2025.

This means that about **700k households (premises)** will need to receive access **by 2025**. Initiative launched March 2021 and the **rules put in place by November 2021.**

Other Related Names:

- Accelerated High-Speed Internet Program (AHSIP) - (previously the Accelerated Broadband Program)
- Up to Speed - Ontario's Broadband and Cellular Action Plan

BUILDING BROADBAND FASTER ACT (BBFA)

This will likely mean ~700 people may be entering the world of 3rd Party Attachments in such things as Design Work. They will be using distribution infrastructure and attaching at a higher rate than in the past.

There is an expected learning curve. Distribution knowledge and Regulation knowledge.

Regulation 22/04 has been heavily involved in creating the Guidelines to the Act.

There are NO changes needed to Regulation 22/04.

BUILDING BROADBAND FASTER ACT (BBFA)

The following bulletins have been of particular interest and we'll review them now.

1. DB-01-20-v1 - Previous Standards

- Details what standard you have to meet.
- Previous version or the Standard edition identified in the regulation or the latest version.

2. DB-07-15-v2 - Materially Insignificant

- How to be exempt from the audit requirements of Sections 7 and/or 8.
- Telecom perhaps 7 only. Municipality perhaps 7 & 8.

BUILDING BROADBAND FASTER ACT (BBFA)

The following bulletins have been of particular interest and we'll review them now.

3. DB-10-12-v1 - LDC Review of Plans

- Review plans, no requirement to re-engineer them.
- Look for the minimum drawing requirements.

4. DB-11-12-v2 – Certificate of Deviation Approval

- Make-Ready Work – alternative name.
- There is a recognized way to not implement make-ready work or delay it until after an installation.

BUILDING BROADBAND FASTER ACT (BBFA)

The following bulletins have been of particular interest and we'll review them now.

5. DB-02-16-v1 – Certificate of Deviations – Certified Lists

- How a P.Eng can create a “standing list of deviations”, in the event they wish to do so. This will mean that a P.Eng will not have to found each time a deviation to the standards is needed. For example, neutral wires are below the line of sight of the communication attachment.

Auditor Question

No Questions were received... Any Questions?

Proposed schedule – Order in which to address guidelines **(Note 1)**

- 1) Year 1 - Guideline for Excavation in the Vicinity of Utility Lines (Section 10)
- 2) Year 1 - Guideline for Third Party Attachments (Section 7 & 8) – **(Note 2)**
- 3) Year 2 - Technical Guideline (Section 7)
- 4) Year 2 - Technical Guideline (Section 8)
- 5) Year 3 - Technical Guideline (Section 6)

Note 1: Order may be changed as needed to address new requirements, stakeholder feedback, etc (e.g. Regulation amendments).

Note 2: Review includes assessing to incorporate into Technical Guidelines, either as 4th section or incorporate into sections 7 & 8.

Proposed schedule – Order in which to address guidelines

- 6) Year 4 - Guideline for Change of Ownership (Section 3) **(Note 3)**
- 7) Year 4 - Guideline for Proximity to Distribution Lines (Section 10)
- 8) Year 4 - Guideline for Disconnecting Unused Lines (Section 11)

- 9) Year 5 - Guideline for Reporting of Serious Electrical Incidents (Section 12)
- 10) Year 5 - Guideline for Audit (Section 13)
- 11) Year 5 - Guideline for Declaration of Compliance (Section 14)

Note 3: Main participation is ESA internal, specifically Operations group since they perform inspections of equipment/installations to be transferred



Focus of 2020 Audits

ESA is expecting for the BBFA to heavily impact the operations of Electrical Distributors.

ESA is also expecting an increased volume of questions related to Regulation 22/04.

Bulletins published

Bulletins

[DB-01-21 Equipment Approval – Industry Standards Recognized by ESA](#)

[DB-02-21 Vault Access](#)

[DB-03-21 Customer Owned High Voltage Letter](#)

*** If not issued by the time of the meeting, ESA will issue 2021 Audit Schedule. There aren't expected to be any significant changes, just updates to the list of current Electrical Distributors.

Flash Notices

[none](#)

Other Issues

1. Configurations of Concern – On-going
2. Auditor General - On-going
3. Legislative Review Panel, Ontario's Broadband Plan & Building Transit Faster Act - On-going
4. COVID-19 - No changes (Auditor & LDC decides on remote audits)
5. DERs, Reg 22/04 Guideline- Updated
6. AODA and the website - On-going
7. CSA (O/H & U/G) standards - On-track (2022 amendment, 2025 new versions)
8. Load Serving Entities / DSOs - On-going (No new news)



Questions

Any Questions?



APPENDIX MATERIAL

APPENDIX MATERIAL AFTER THIS SLIDE

Federal and Provincial Initiatives and ESA Regulations

Discussion Points:

1. Legislative Review Panel Report
2. Up to Speed: Ontario's Broadband Plan
3. Building Transit Faster Act

Legislative Review Panel Report

Highlights

- Review of communications laws
- Includes a review regarding access to passive infrastructure (e.g. structures).
- ESA has sent a letter in August 2020 to the federal ministry.

ESA continues monitor developments and seek to provide input with respect to the Legislative Review Panel Report.

Up to Speed: Ontario's Broadband Plan

Highlights

- Ontario government is looking to improve broadband access. Highest impact expected in rural areas.

ESA continues monitor developments and seek to provide input to government on safety regulations.

Building Transit Faster Act

Ontario has approved the Building Transit Faster Act (Bill 171) as of July 7, 2020.

The Act is designed to get transit built faster by:

“Relocating utilities more efficiently while treating businesses fairly, and ensuring costs are not passed on to consumers”.

- Allow for Metrolinx to require a utility company to relocate its infrastructure within a prescribed timeframe. Introduce a clear process for managing disputes and allow Metrolinx to seek compensation from a utility company if timelines are not met.
- This is similar to the process used for highway projects.
- Amendments to the Ontario Energy Board Act, 1998 would prohibit the Ontario Energy Board from allowing provincially regulated utilities (electricity and natural gas) to pass compensation costs incurred from delays on to ratepayers.

Building Transit Faster Act

Regulation 22/04 requirements still apply to the Distribution System as they always have.

ESA is seeking input from this Council regarding the effects or potential effects related to the requirements of Regulation 22/04.

Load-Serving Entities and Regulation 22/04

At the most basic level, an LSE is an entity that is responsible for securing electricity resources to meet the supply needs of the customers it serves. They would assume the obligation to serve their load customers through planning and procurement of incremental supply resources.

In the event that LDCs could convert to Licensed LSEs, there would be impacts on ESA however they would primarily consist of minor amendments to the existing Regulation 22/04 and the Ontario Electrical Safety Code (OESC).

If the license exists, a Licensed Distribution Company (LDC) would typically have the option to voluntarily take on LSE Licenses, if they chose to pursue the additional obligations of an LSE. This could take of the form of a transition from an LDC to a LSE.