

# **Auditor Debrief**

- November 9, 2018
- November 2, 2017
- November 3, 2016
- November 16, 2015

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November 9, 2018

## 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 martin.post@electricalsafety.on.ca
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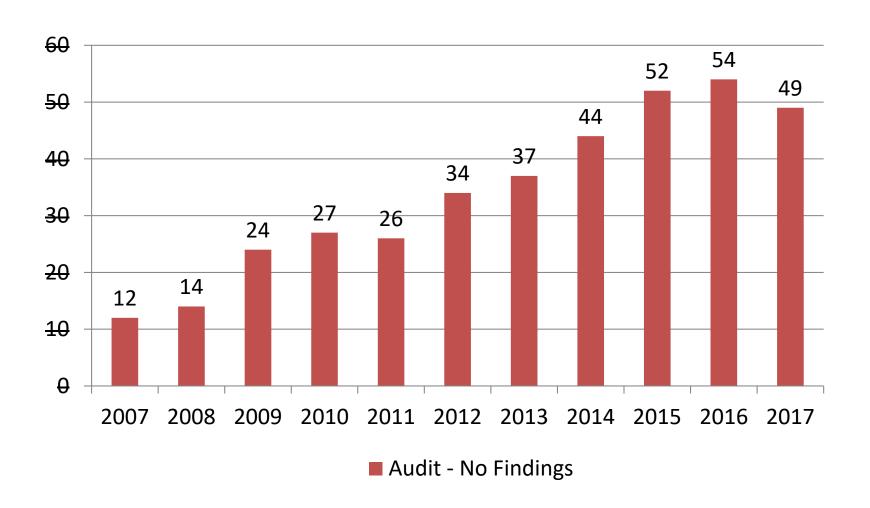
# **AGENDA**

- 1. Review of 2017 Audit results
- 2. Key 2017 Audit Findings
- 3. 2018 Questions & Issues / Auditor Feedback
- 4. Focus of 2018 Audits
- 5. Other Information
  - a) Bulletins
  - b) Other Issues

# Summary of Audit Findings for 2017

- Total of 68 LDC Audit reports
- 49 LDCs Full Compliance ('16-54)
- 2 LDCs with Non-Compliance findings
- 18 LDCs Needs Improvement only
- 11 LDCs with only one finding (NI or NC)
- 8 LDCs with two or more findings (NC or NI)
- 2 LDCs had more than 1 Non-compliance

# Summary of Audit Findings Life to Date



# Section 4/5 Audit Findings

#### Section 4/5 – Safety Standards

- To fully implement Inspection/Maintenance of OH/UG/Station and meet OEB's Distribution System Code Appendix C
- No overhead inspections have been done since 2014
- No underground inspections have been done since 2014

## Section 6 Audit Findings

- PO's do not provide sufficient information. (The LDC's purchase orders do not consistently show sufficient detailed information to ensure that approved equipment is specified.)
- Legacy or returned equipment in stores but no record of inspection/approval for use/re-use (Equipment returned from field and scheduled for scrapping in Stores area)
- ensure all transformer test reports are stored at the time the transformers are received
- unapproved material used to fill a woodpecker hole in a distribution system pole
- The distributor did not have an approved equipment list available for checking and crosschecking material ordered on the system
- Major equipment returned directly from the field is inspected by warehouse personnel and returned to stock without any records of inspection confirming "no undue hazards".

## Section 7 Audit Findings

- As-built drawing did not reflect changes (cross-arm installation) in the field.
- Third party attachment plans were prepared and approved by P. Eng., however plans were not approved by LDC
- Conditional certificate of approval from third party attacher

## Section 8 Audit Findings

- 1. Review and update/modify CVP
- 2. Certificate of Deviation signed by non P. Eng.
- 3. The operations clerk did the sign offs electronically but is not identified in the CVP as a qualified person.
- 4. Record of Inspection/Certificate completion issues
  - Underground civil construction by contractors is inspected by engineering personnel without providing an inspection record.
  - Record of Inspection signed and dated but without check on the boxes.
  - Ensure the Certificates are signed after the Record of Inspection. If a change is made a new Certificate should be issued
  - Inconsistencies in the completion of the Record of Inspection and Certificate - Trouble Calls, Partial Cert.,
  - No Record of Inspection available for 3rd party attachments
  - Rol not completed for meter work meter changes and new meters

## Auditor Question – From 2017

- Q. Tablets using the Mcare software are more often used to complete work records for activities such as meter removals and installations. A "no undue hazards" statement can be generated, but the work can be completed without clicking on the NUH statement. Is this acceptable? Should a NUH statement be mandatory before signing off on an assignment?
- A. Yes, a "No Undue Hazard" statement is required as a form of Certificate where no Record of Inspection and Certificate are otherwise completed. However, the requirement for programming an electronic process is not enforceable under the Reg. The LDC can determine how the NUH is recorded, but it must be available for the auditor, in the same way a RoI or Certificate are required.

Q. mCare software is used by various LDC's to record activities, e.g., such as meter removal, meter installation, meter disconnects/reconnects, trouble calls, emergency work etc. A "No Undue Hazard" statement is required as a form of Certificate, where no Record of Inspection and Certificate are otherwise completed.

FYI; mCare software has an option - a scanned copy of "Record of Inspection" with "No Undue Hazard" statement can be attached to the soft copy of that particular WO in mCare.

- A. ESA is fine with software / softcopy records and accepts their use.
  - LDCs should be following the (ROI/Certificate) vs (Statement of No Undue Hazard) direction provided in the Technical Guideline (Flowchart 4.1.3).
  - i. <u>Most</u> work done to Plans or Standard Designs should have a system and verbiage that mirrors the (ROI/Certificate process).
  - ii. <u>Most</u> Like-for-Like, and Emergency work should have a system and verbiage that mirrors the (Statement of No Undue Hazard process).
  - iii. "meter removal, meter installation, meter disconnects/reconnects, trouble calls, emergency work" These can all use the statement of No Undue Hazard..

- Q. Can pictures be considered as partial/final "Record of Inspections" of underground trenching construction?
- A. Pictures alone are not a Record of Inspection. An address, date and person inspecting ID is also important parts of the ROI. ESA is fine with pictures being used to supplement a Record of Inspection.

For example, if the workers working on the trench are not on the CVP and they wish to send in photos to a person that is on the CVP in order for the Record of Inspection and Certificate to be filled out ESA accepts that practice, as long as the LDC accepts that practice.

- Q. Revision dates of "Technical Guidelines for Section 6, 7 and 8 of O. Reg 22/04" and "Technical Guidelines for Third Party Attachments" are September 30, 2005 and October 5, 2005 respectively. Are there any plans to revise these documents in near future?
- A. Yes, ESA is working on a Best Business Practice which will document that ESA will review each Guideline on a 5 year cycle, like many CSA standards. Below is the proposed schedule ESA discussed with the Utility Advisory Council (UAC) in our November 2017 meeting.

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

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

- 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)
- 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

- Q. Due to organization changes in LDCs, are the LDCs required to get re-approved all procedures, standard design drawings and other documents pertaining to O. Reg. 22/04?
- A. No. Now if a P.Eng signed off their standards and is no longer an employee of that LDC that is a concern of ESA. If you run across this, please note it as a "Needs Improvement".
  - i. All other processes and procedures are seen as the Distributors and if a staff member signed off on a procedure and is no longer there, ESA still sees the procedure as in-force within the LDC.

- Q. Any plans to re-arrange the audit schedules for LDC in Group 1 (winter). This matter was brought up before this group. Some time Driving is very strenuous. Freezing rain or driving while sandwiched between two transport trucks is very scary. Considerations should be given to the safety of the auditors. Incident can happen even during nice weather. Let's us come with a solution to avoid any incident in future?
- A. ESA agrees that the Groups need to be revisited and revised as I am in 100% agreement with your concern. This is currently not in the works to change, if you'd like to propose something that would be great, otherwise I'll try to work it into the schedule soon. The process will be to draft up a Proposal, run it past the Auditors and UAC and transition to the new schedule.

- Q. Is it acceptable to use timesheets as "Record of Inspections" for New Lines, Line Upgrades or Line Replacements. My understanding is that timesheets can be used as "ROI" for only emergency work, or trouble calls type of work.
- A. Depends what is in the approved CVP. Generally ESA would agree that timesheets do not typically have sufficient language to qualify as a ROI. If this cannot be verified please note the item as a "Needs Improvement" and ESA can discuss with the LDC.

- Q. "If a merger occurs between Company A and Company B and in the past Company B has had audit results with needs improvements or non-compliance, what are the expectations of the merged company for resolving these comments? Will the audit on the initial merged year with both Company A and Company B be unfavourable if the comments have not been resolved fully?
- A. The merged company is seen to have a Needs Improvement and/or a Non-Compliance that they have to deal with. If the findings were not dealt with prior to the latest audit then this would be a subsequent finding and should be noted. A N/I should be noted as a N/C the second time around, even in the event of a merger.

- Q. CSA Z463 "Guideline for Maintenance of Electrical Systems" became CSA Standard Z463 in September. Are LDC's to comply with the standard and if so, are we to audit to its requirements for preventive maintenance?
- A. No. ESA is not enforcing this standard under Regulation 22/04. In addition, it is ESA's understanding that there is currently an exclusion in this standard that applies to Distributors.

- Q. PART #1: Transfers of third party attachments are often necessary when lines are moved for road widening or line rebuilds. LDC's usually cut down the old poles to a point just above the attachments. The stub poles and the attachments often remain in place for many months before the third parties get around to transferring over to the new line. What is a reasonable time delay for the transfers?
- A. ESA does not have nor plans to create requirements or recommendations for the amount of time for a transfer. ESA typically sees this as a business issue.

- Q. <u>PART #2</u>: Transfers of third party attachments are often necessary when lines are moved for road widening or line rebuilds.... Should line rebuilds fall under the ESA guideline for third party attachments?
- A. Yes. 2.3 Like-for-Like Replacement "When a transfer of equipment is proposed by an owner or an attacher it shall be considered a like-for-like replacement and shall be subject to the process for completing records of inspection and statement or no undue hazards identified in the owner's Construction Verification Program."

- Q. <u>PART #3</u>: Transfers of third party attachments are often necessary when lines are moved for road widening or line rebuilds.... If so, should we consider this as design by the owner?
- A. Yes. Most LDCs and 3<sup>rd</sup> Parties will use the Like-for-Like Replacement definition in the Guideline. Where this is not used the design can be generated by the LDC or 3<sup>rd</sup> Party, as per Section 7 of Regulation 22/04.

- Q. When an LDC installs its equipment in a customer-owned vault, should the LDC follow the rules for OEB substations?
- A. The vault is to meet the requirements of the National Building Code (NBC). The CSA **Underground Technical Committee is reviewing** inserting a new section that will apply to equipment "within the footprint of a building" (this would include "vaults"), the Scope will be widened to allow for this. With respect to maintenance, the LDC is at minimum required to visually inspect to ensure there is an adequate barrier to their equipment periodicly.

- Q. When rebuilding municipal overhead lines, some LDC's produce partial certificates of inspection when lines and equipment are reenergized in stages. Others claim that they never do this because they disconnect and re-energize at one time. It is difficult to imagine that a line rebuild of many blocks, carried out over many weeks could all be disconnected and reenergized at one time, but it is very difficult to find evidence after the fact. Do you have any guidelines?
- A. ESA does not see this a realistic possibility. ESA requests that this be documented as a "Needs Improvement".

A. <u>Continued</u>: ESA does not see this a realistic possibility. ESA requests that this be documented as a "Needs Improvement".

#### 4.1.2 What is meant by "putting a distribution system into use"?

Putting a system into use means after completion of the work or portion of the work to construct, repair or modify an electrical installation forming part of the electrical distribution system, it is placed back into full service or is made available for service.

For new construction the system is available for service when the construction reaches a stage where it can be used to distribute electrical energy. For modifications and repairs to existing systems the system is available for service when it can be returned to normal use.

**Energizing part of a project:** For projects such as a voltage conversion or a *line upgrade* in which equipment is connected to a new primary circuit at various stages, a partial inspection and certification is required prior to each portion being made available for service.

- Q. A number of LDC acquisitions and mergers have occurred over the past year. I know that the minutes of your 2016 meeting contain some guidelines. Anything further?
- A. No. LDCs undertaking an acquisition or merger contact ESA to generate a Plan to transition Regulation requirements to the new entity. The "Audit & DoC Due date" bulletins address the new entities, without all the details.

- Section 8
- Certificates of Deviation
  - ESA has noticed that construction that should have "Certificates of Deviation" do not always have them accompanying the design.
  - Best practice would be to sign a Certificate of Deviation in the events that the LDC is not meeting a "shall" clause in the standards (e.g. CSA) that relates to safety.
- Regulation 22/04 Amendments
  - What are the amendments and some impacts of those amendments.
  - Section 5 CSA Standards
- CSA Clause 1.2 (CSA C22.3 2006 vs 2015)
  - ESA has noticed that some LDCs were not aware of the changes to the Overhead and Underground standard with respect to Clause 1.2.
  - ESA has noticed that there are some LDCs that are confused on the application of ESA bulletin DIB-0-08 entitled "CSA C22.3 Elucidation".
- "Work Instructions" vs "Plans"
  - ESA has a concern that there may not be a clear delineation between "Work Instructions" and "Plans".
  - ESA has a concern regarding the use and approval of "SPIDA Calc" and "PLS Pole".
- "Delta Wye" conversions
  - Update Auditors on this project, in the event you are asked questions.

#### Section 8

- Audits for 2016 and 2017 indicate a trend of increased findings for Records of Inspection and Certificates not being completed correctly or at all
- Causes?
  - changes in field staff/ Management?
  - Training?
  - Complacency?
- Auditors are directed to consider trending in each LDC they audit and mark as non-compliant if necessary

#### **Certificates of Deviation**

- For compliance with Regulation 22/04 ESA is reviewing direction to LDCs to complete "Certificates of Deviation" in the events that the LDC is not meeting a "shall" clause in the standards (e.g. CSA) that relates to safety.
- Bulletin in ESA's "Work in Progress" regarding structures (e.g. poles) that are installed less that the CSA requirement.

## Regulation 22/04 Amendments

- Amendments in Force, starting October 1, 2017.
- Are LDCs using the old version of Reg. 22/04?
- Section 5 Updates
  - Updates to CSA standards to 2015.
  - Updates to the OESC Section 86.
  - Update to NESC C2 2017.
- Other updates included outside of Audit scope.

## CSA Clause 1.2 (CSA C22.3 - 2006 vs 2015)

**2006**: Existing installations, including maintenance replacements, **additions**, **and alterations**, meeting the original designs that currently comply with prior editions of this Standard, need not be modified to comply with this edition of the Standard, except as might be required for safety reasons by the authority having jurisdiction.

**2015**: Existing installations (including maintenance replacements **and maintenance alterations**) meeting the original designs that currently comply with prior editions of this Standard, need not be modified to comply with this edition of the Standard, except as might be required for safety reasons by the authority having jurisdiction.

# Focus of 2018 Audits **CSA C22.3 No.1 – A.1.2**

<u>2015</u>: The intent of this Clause is to permit overhead lines that have been constructed in compliance with a prior version of the Standard to remain in service in the event of a subsequent revision of this Standard, without being modified to comply with the revised Standard.

This Clause is <u>not</u> intended to permit the addition of new line sections, new conductors, new attachments, or new equipment to an existing line that do not comply with the current version of the Standard. <u>Such new additions are intended to comply with the latest revision of the Standard.</u>

Maintenance of an existing line, including repair, or replacement where necessary, of failed or failing components of the line (including poles, conductors and other equipment), is permitted without modifying the line to meet the latest revision of the Standard.

ESA has not removed nor revised the direction provided in DIB-03-08, which was drafted in accordance with the 2006 standard.

ESA is awaiting further analysis by the CSA Technical Committee, before ESA makes any changes.

LDCs however should be aware of this change in the CSA standards.

#### "Work Instructions" vs "Plans"

#### Question #1

If the design is based on a single standard (such as a residential service relocation), could the technician release a simple design based on the approved standard without the professional engineer's approval?

#### Answer #1

Yes, the technician can release the "simple design" using the approved standard. The Certificate of Approval requirement of Section 7, would be with the Professional Engineer that approved the single standard.

#### "Work Instructions" vs "Plans"

#### **Question #2**

If the design is based on numerous standards that need to be properly assembled together and properly integrated with the existing system, is the technician required to get the design checked and stamped/sealed by the professional engineer or can the design be checked by his immediate supervisor who is not an engineer?

#### Answer #2

#### Depends.

If the numerous standards, approved by a Professional Engineer, are such that they can be assembled by a "competent person" (e.g. technician) then this would be considered a "Work Instruction" and the technician can release the "design".

If the standards were not designed in such a fashion that they can be assembled by a "competent person" then the resulting multi-standard design work would be considered as a "Plan" and would require a Certificate of Approval for that "Plan".

#### Focus of 2018 Audits

#### "Work Instructions" vs "Plans"

#### Answer #2 - Con't

- For <u>simple multiple tangent lines</u> and some angled poles without equipment attachments, it is likely that the distribution line could be assembled by a "competent person" and none of the approved standards will be violated. Therefore, this job could be viewed as a "Work Instruction" and the P.Eng's on the individual standards are the P.Eng's for Section 7.
- For more complex designs, it is possible that the distribution line could be assembled by a
  "competent person" and none of the approved standards will be violated. However, there is a good
  chance that a complex design may/will violate some approved standards. ESA suggests that for
  many complex designs these should be seen as a "Plan" and a P.Eng sign the Certificate of
  Approval for Section 7 to cover the complex design.
  - Note #1 (typically relating to more complex designs): In the event that a "Work Instruction" (assembled approved, individual standards) is used for a design and that design violated some of the approved standards, ESA would find the LDC to be in Non-Compliance with Regulation 22/04.
  - Note #2 (typically relating to more complex designs): In the event that a ""Work Instruction" (assembled approved, individual standards) is used for a design and that design did not violate some of the approved standards due to the wording of the approved standards, however created a safety issue, ESA may find the LDC in Compliance with Regulation 22/04 Section 7, and would evaluate whether to send the issue over to the PEO to investigate the P.Eng for Professional Misconduct 72(2) or Incompetence Section 28(3).
- Example of Complex: The approved standards book doesn't limit the amount of standards that apply to a single pole (Switches, Risers, Transformers, 4-circuits, etc... are all attached to a single pole), however the approved standards book technically doesn't prevent the "competent person" from doing this. The pole is "overloaded" but it is issued as a "Work Instruction". The LDC may or may not technically meet the requirements of Regulation 22/04. The P.Eng may or may not technically meet the requirements of the PEO

#### Focus of 2018 Audits

#### "Work Instructions" vs "Plans"

#### Question #3

If the overhead design requires engineering calculations, such as guying and anchoring and therefore require the use of a non-linear analysis tool, such as SPIDA Calc. or PLS Pole, is the technician required to get the design checked and stamped/sealed by a professional engineer or can the design be checked by his immediate supervisor who is not an engineer?

#### Answer #3

Depends.

If a Professional Engineer signs off the use of SPIDA Calc or PLS Pole, as they would an approved standard (with a Certificate of Approval) or equivalently recognizes that the programs are harmonized with the standard, then the work can be considered a "Work Instruction" and the Certificate of Approval would be with the Professional Engineer that approved the use of the program.

### Focus of 2018 Audits

#### "Work Instructions" vs "Plans"

For example, the Professional Engineer recognizes that the program (e.g. SPIDA Calc or PLS Pole) aligns with the approved standards then that tool can be used for the calculations. If the program produces numbers that meet the requirements of the approved standard then the "competent person" can assemble the information and this would be considered a "Work Instruction" and the design can release by the technician. If the information produced by the program does not meet the requirements of the approved standard (e.g. too much deflection in the structure) then the information should not be used, without a "Certificate of Deviation" or some other sort of Professional Engineer approval.

<u>Note</u>: If the standard does not contain any limitations (e.g. restricting the deflection) and it should, then it would technically be approved under Regulation 22/04, however ESA would likely be forced to bring this information to the attention of the PEO in the event there was a concern regarding Negligence and/or Incompetence with the Professional Engineer.

### **Bulletins** published

#### **Bulletins**

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DB-02-18 Distribution Stations Standard - CAN/CSA-22.3 No. 61936-1
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DB-03-18 Engineering Practices and Regulation 22/04 - Sections 4 & 5

DB-04-18 Electrical Work and Service Connections

#### Flash Notices

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FN-01-18 (Phase 1) 3-Phase, 3-Wire, Solidly-Grounded Wye Customer Services
FN-01-18 (Phase 2) 3-Phase, 3-Wire, Solidly-Grounded Wye Customer Services
- Proposals
FN-01-18 (Phase 2) 3-Phase, 3-Wire, Solidly-Grounded Wye Customer Services
- Corrective Action Proposal Worksheets
FN-01-18 (Phase 2) 3-Phase, 3-Wire, Solidly-Grounded Wye Customer Services
```

- Complete

# DB-02-18 Distribution Stations Standard - CAN/CSA-22.3 No. 61936-1

The intent of this bulletin is to ensure all Local Distribution Companies (LDCs) are aware that ESA has completed our evaluation of CAN/CSA-22.3 No. 61936-1 entitled Power Installations Exceeding 1kV A.C. – Part 1: Common Rules, with respect to Regulation 22/04 – Sections 4& 5.

#### **ESA DIRECTION**

Regulation 22/04 requires that the primary Safety Standards be met when working on the distribution system. An LDC is deemed to meet the Safety Standards when Section 5 of Regulation 22/04 is met or exceeded. ESA recognizes that distribution stations designed, constructed, installed, protected, used, maintained, repaired, extended, connected and disconnected that meet or exceed CAN/CSA-22.3 No. 61936-1:08 will be deemed to meet the Safety Standards of Regulation 22/04, despite the fact the Standard is not currently included in the current wording of Regulation 22/04 for distribution stations.

ESA plans to propose to amend Regulation 22/04 to include the reference to CAN/CSA-22.3 No. 61936-1, the next time the Regulation is reviewed for amendments.

# DB-03-18 Engineering Practices and Regulation 22/04 - Sections 4 & 5

The intent of this bulletin is to clarify the process Local Distribution Companies (LDCs) follow when they are looking to introduce engineering practices, to ensure that they meet the Safety Standard requirements of Regulation 22/04 – Sections 4&5.

#### **ESA DIRECTION**

Regulation 22/04 requires that the primary Safety Standards be met when working on the distribution system. An LDC is deemed to meet the Safety Standards when Section 5 of Regulation 22/04 is met or exceeded. In the event that an LDC wishes to introduce an engineering practice which does not meet / deviates from the Safety Standards, the LDC shall contact the ESA Utility Regulations department to review the engineering practice. Failure to inform ESA may result in an annual Audit and/or Compliance Investigation finding (Non-Compliance or Needs Improvement) by ESA.

#### DB-04-18 Electrical Work and Service Connections

This bulletin addresses LDCs training customer-owned electrical cables into position for connecting a customer to the distributor's equipment, and any associated mechanical protection (i.e. barriers) work.

When an LDC is performing termination work to connect customer-owned equipment to the distributor's equipment, the LDC may perform electrical work on the customer equipment, that is directly associated with making the connection, under Regulation 22/04. The electrical work may include training of customer-owned electrical cables into position for connecting a customer to the distributor's equipment and installation of any associated mechanical protection (e.g. power cable guard).

#### **ESA DIRECTION**

LDCs may perform termination work associated with connecting a customer to a distributor's equipment under Regulation 22/04, such as:

- Training customer cables up a pole & installing the associated riser mechanical protection;
- Training the customer cables into subsurface chambers or boxes & backfilling the trench; or
- Training the customer cables into foundations or pad-mounted equipment & backfilling the trench.

#### **Auditors**

If the LDC chooses to do this work, then section 8 of Reg. 22/04 apply - (Statement of No Undue Hazard or Record of Inspection & Certificate)

- 1. Configurations of Concern
- 2. Energy Storage & Generation
- 3. Audit of Compliance Assessment process for LDC Scorecard
- 4. Review of all guidelines by UAC/working groups
- 5. Substation standard CAN/CSA-C22.3 No.61936-1

#### Other Issues - FYI

#### CONFIGURATIONS OF CONCERN

- 1. All LDCs are participating in the program to remove the configuration of concern from their systems.
- 2. <u>FN#1 Jan 2018</u> ::: <u>FN#2 June 2018</u>
- Some LDCs believe that delta secondary connections are no longer allowed in Ontario. This is FALSE. ESA believes slang in the industry is to blame for much of that confusion.

FLASH NOTICE #1	FLASH NOTICE #2
Number of Possible Configuration of Concerns	Number of Possible Configuration of Concerns
~15,000	~10,900
·	
Number of LDCs without a Possible Configuration of Concern	Number of LDCs without a Possible Configuration of Concern
12	22

#### **Energy Storage & Generation**

- Guideline has been published on ESA's website.
- Guideline outlines what is typically deemed "part of a distribution system under Regulation 22/04"
- This will be auditable. For starters, please note as an Observation if the LDC is planning these installations.

#### **EV Charging Stations**

- ESA issue prior direction that this equipment cannot be installed under Reg. 22/04
- Please note as an Observation if the LDC has installed or is planning these installations as a distribution asset.

### What types of Energy Storage are deemed part of a distribution system under Regulation 22/04?

To be deemed part of a distribution system under Regulation 22/04 an energy storage unit shall meet the following criteria:

- a) The energy storage unit is deemed a distribution asset by the Ontario Energy Board (OEB) or the energy storage unit is to primarily exist for such purposes as equipment upgrade deferrals or improved reliability of the distribution system (see Appendix A for more examples). \* Note: (i) An energy storage unit will not be deemed by ESA as part of a distribution system if it is deemed not a distribution asset by the OEB;
- b) The energy storage unit is connected to the line side (i.e. upstream) of the ownership demarcation point; and
- c) Regulation 22/04 Sections 4 & 5 are satisfied.

### What types of Generation are deemed part of a distribution system under Regulation 22/04?

To be deemed part of a distribution system under Regulation 22/04 a Generator would have to meet the following criteria.

- a) The generator is deemed a distribution asset by the Ontario Energy Board (OEB) or the generator is to primarily exist for such purposes as for equipment upgrade deferrals or improved reliability of the distribution system (see Appendix A for more examples). \* Note: (i) A generator will not be deemed by ESA as part of a distribution system if it is deemed not a distribution asset by the OEB;
- b) The generator shall be connected to the line side (i.e. upstream) of the ownership demarcation point; and
- c) Regulation 22/04 Sections 4 & 5 are satisfied.

\* Note: In the event that the OEB has not yet determined the status of the equipment and the LDC determines (using this guideline) that it likely is a "distribution asset", and at some future point the OEB deems the equipment to "not be a distribution asset" then ESA will harmonize with the OEB decision and will also consider the equipment to "not be part of the distribution system".

TYPICALLY COVERED UNDER REGULATION 22/04	8
Application #1 —Congestion Relief	
Application #2 —Upgrade Deferrals	
Application #3 — Area Regulation	
Application #4 — Voltage Support	
Application #5 — Substation On-site Power	
Application #6 — Electric Service Reliability	
Application #7 — Electric Service Power Quality	
Application #8 — Emergency Power	
NOT TYPICALLY COVERED UNDER REGULATION 22/04	
Application #9 — Electric Energy Time-Shift	
Application #10 — Time-of-Use Energy Cost & Demand Managem	ent . 10
Application #11 — Electric Supply Capacity	
Application #12 — Load Following	
Application #13 — Electric Supply Reserve Capacity	

- Section 5 Safety Standards updated
  - Section 5(1) OESC section reference
    - 86-402 becomes 86-404
  - Section 5(2) overhead standard
    - C22.3 No. 1-01 becomes C22.3 No. 1-15
  - Section 5(3) underground standard
    - C22.3 No. 7-94 becomes C22.3 No. 7-15
  - Section 5(4) Distribution stations
    - NESC C2-1997 becomes NESC C2-2017

- Regulation amendments came into effect on October 1, 2017
- Projects in design phase before October 1 can be completed under previous standards or new standards;
- Projects started (design) after October 1 meet new standards
- LDC not incorporating new standards in 2017 should be assessed a Needs Improvement, to be escalated to Non-compliance if not addressed in 2018

- Other sections amended
  - Section 10 (1) & 10(2) Proximity to Distribution
     Lines amended to reflect same CSA standard
     update
  - Section 12 Reporting Serious Electrical Incidents
    - Added obligation to assist ESA investigation of serious incident [12(3.1)]
    - Added definition of 'Force Majeure' and 'meter'
    - Expanded reportable scope to include meters (under 750V)

#### Discussion

 Did anyone have any issues or questions last year?

#### LDC Mergers and Acquisitions

- 1. Alectra and Guelph Hydro
  - OEB Approved
  - Close of transaction is scheduled for January 1, 2019
- 2. Newmarket-Tay Power and Midland Power
  - OEB Approved
- 3. Veridian and Whitby
  - Application before OEB for merger
- 4. Kenora and Thunder Bay
  - Application before OEB for merger
- 5. Hydro One and Peterborough
  - In discussion

Any Questions?

### **Auditor Debrief**

**November 2, 2017** 

#### 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 martin.post@electricalsafety.on.ca
 or jason.hrycyshyn@electricalsafety.on.ca

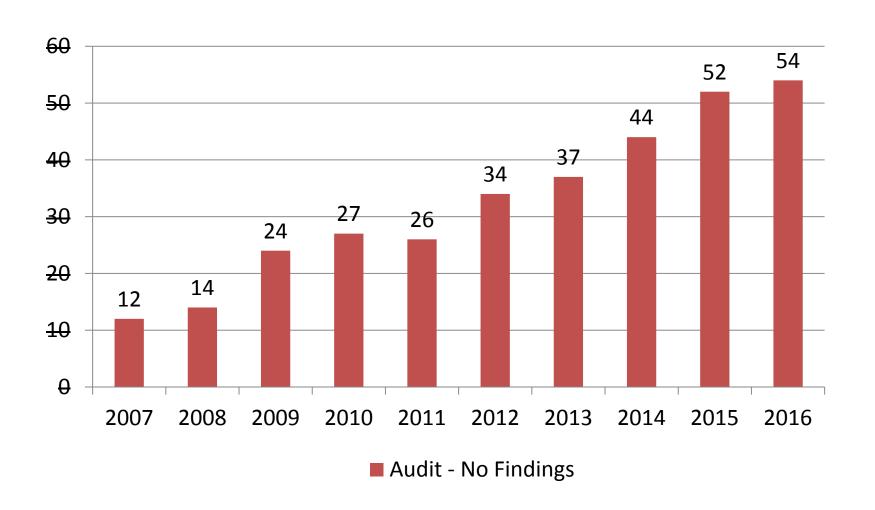
### **AGENDA**

- 1. Review of 2016 Audit results
- 2. Key 2016 Audit Findings
- 3. 2017 Questions & Issues / Auditor Feedback
- 4. Focus of 2017 Audits
- 5. Other Information
  - a) Bulletins
  - b) Other Issues
- 6. SatiStar Update

# Summary of Audit Findings for 2016

- 54 LDCs Full Compliance ('16-52)
- 13 LDCs Needs Improvement only
- 10 LDCs with only one finding (NI or NC)
- 7 LDCs with two or more findings (NC & NI)
- 3 LDCs had more than 1 Non-compliance

# Summary of Audit Findings Life to Date



### Section 4/5 Audit Findings

#### Section 4/5 – Safety Standards

- Maintenance records inconsistently completed/no prioritization of findings
- Underground vaults and manholes are not included in the inspection program and no data was provided

### Section 6 Audit Findings

- Unapproved equipment used
  - material used for filling holes in wooden poles caused by woodpeckers was not approved
- Distributor could not find some transformer test data sheets for transformers installed on the system in the audit period.
- Unable to validate if approved equipment is used
  - The distributor did not have an approved equipment list available for checking and crosschecking material ordered on the system. The contractor did not provide product numbers for material used in new construction.

### Section 7 Audit Findings

 Approved Standards not referenced on plans, layouts

### Section 8 Audit Findings

- Records of Inspection and Certificates not completed
- Records of Inspection for meter changes had inconsistencies. (Depending on the person completing the form, different boxes were checked or not checked)
- Due to organizational change, the distributor needs to modify their CVP
- Need to be more consistent in completing the CVP- C3 form particularly in responding to trouble call.
- Reflect field changes in the as built drawing
- The operations clerk did the sign offs electronically but is not identified in the CVP as a qualified person.
- Records of inspection need to be completed at the time of energization either full or partial. All jobs did not have records of inspection.

- Q. Tablets using the Mcare software are more often used to complete work records for activities such as meter removals and installations. A "no undue hazards" statement can be generated, but the work can be completed without clicking on the NUH statement. Is this acceptable? Should a NUH statement be mandatory before signing off on an assignment?
- A. Yes, A No Undue Hazard statement is required as a form of Certificate where no Record of Inspection and Certificate are otherwise completed. However, the requirement for programming an electronic process is not enforceable under the Reg. The LDC can determine how the NUH is recorded, but it must be available for the auditor, in the same way a RoI or Certificate are required.

- Q. One LDC records trouble calls in electronic format. The control room generates a trouble report and inserts the operations person's name. Once the trouble call is completed the record disappears there is no longer a trouble call record. The LDC sees no value in retaining a record unless equipment has been replaced or a major repair carried out. Is that an acceptable practice? A work order is issued when wiring or equipment is replaced.
- A. Assuming all Regulation 22/04 records (RoI, Certificate) are retained/ accessible for the audit, then it is acceptable. However, if any work, even minor repairs, are completed then the records should be completed and retained, including a Record of Inspection/Certificate or a statement of No Undue Hazard.

- Q. One LDC records overhead and underground inspections in tablets. Results are downloaded to an electronic mapping system. Does that satisfy Section 4 for inspection records?
- A. The recorded details of inspections should be available for audit purposes. This includes information such as who conducted the inspection, date/time and location of inspection, and outcome of the inspection.

- Q. Lack of partial certificates of inspection has been an ongoing concern. One LDC incorporates partial energizations at different work stages into its project plans. Partial certificates of inspection are included in the documentation at each stage, assigned to the construction personnel. Should this become a requirement?
- A. Completed Certificates are required prior to energization, either in stages or a one-stage project.

- Q. I encountered the following third party attachments.
- Underground dips from LDC's overhead system for third party attachers,
- Power supply box (2'x2'x1') and disconnect switch attached to LDC's overhead system for third party attachers (Bell/Rogers/Cogeco),
- Power supply box (2'x2'x1') and disconnect switch attached to LDC's overhead system for natural gas utilities' (Enbridge/Union Gas) rectifiers.
- I am not sure if these attachment of the supply boxes would come under "Materially Insignificance Installations". Can you please review the above scenarios' and advise how to approach.
- A. ESA's goal with the Materially Insignificant direction was to have a P.Eng deem something as materially insignificant and not ESA. Now if that P.Eng works for the LDC then it would mean that the LDC accepts this. If the P.Eng works for someone other than the LDC then the LDC still has to accept that P.Engs work and allow it on their system, if the LDC chooses not to accept then it is not allowed.
- For Example: P.Eng works for Bell and says that Power Supply Boxes are materially insignificant and presents this to the LDC. The LDC can agree and use the P.Eng's work as documentation that it has done their due diligence to prove this is materially insignificant... or it can say "No" and the Power Supply Boxes would not be materially insignificant in that LDC's service territory.

#### Observation, Needs Improvement, Non-Compliance

- Observations are not included in the Audit Guideline as a "finding category"; they have evolved over the years, where the Auditor can relay information not related to compliance.
- Needs Improvements (NI) are meant to capture where the LDC may be inconsistently following a process or there is a gap in the process for complying but they are still getting it mostly right.
- Non-Compliances (NC) are occurrences of obviously not complying with the Regulation; an NI that remains unaddressed after being identified in a previous audit; or an egregious safety issue.
- There is an established "escalation process" for compliance issues, and it starts at Needs Improvement and moves to Non-Compliance. We have made this clear to the LDCs over the years and they understand it.

#### Focus of 2017 Audits

- "Delta Wye" conversions
  - Auditors can try to determine if the LDCs have reviewed the bulletin regarding the safety issues and prepared a plan to address the issue. Note this addresses more than just the "Delta – Wye" conversion work.
- Damaged Customer Services in emergency conditions
  - Auditors can try to determine if the LDCs have reviewed the bulletin and prepared a plan to address the issue
- Amendments to Regulation
  - Auditors can confirm if Regulation amendments have been incorporated (CSA standard changes) in Design Standards
  - LDC not incorporating new CSA standards in 2017 should be assessed a Needs Improvement, to be escalated to Non-compliance if not addressed in 2018

# **Bulletins** published

DB-02-17	Mitigation of	pol	e top	<u>fires</u>

- DB-04-17 Meter Base Mounted Transfer Devices
- DB-05-17 Factors to Consider for Damaged Customer's Services During Emergencies
- DB-07-17 LDC/ESA Communications for Code Side Safety Concerns

#### Other Issues

- 1. Delta Wye (and similar)
- 2. Energy storage & generation
- 3. Audit of Compliance Assessment process for LDC Scorecard
- 4. Review of all guidelines by UAC/working groups
- 5. Substation standard CAN/CSA-C22.3 No.61936-1

## Regulation Amendments

- Section 5 Safety Standards updated
  - Section 5(1) OESC section reference
    - 86-402 becomes 86-404
  - Section 5(2) overhead standard
    - C22.3 No. 1-01 becomes C22.3 No. 1-15
  - Section 5(3) underground standard
    - C22.3 No. 7-94 becomes C22.3 No. 7-15
  - Section 5(4) Distribution stations
    - NESC C2-1997 becomes NESC C2-2017

## Regulation Amendments

- Regulation amendments came into effect on October 1, 2017
- Projects in design phase before October 1 can be completed under previous standards or new standards;
- Projects started (design) after October 1 meet new standards
- LDC not incorporating new standards in 2017 should be assessed a Needs Improvement, to be escalated to Non-compliance if not addressed in 2018

### Regulation Amendments

- Other sections amended
  - Section 10 (1) & 10(2) Proximity to Distribution
     Lines amended to reflect same CSA standard
     update
  - Section 12 Reporting Serious Electrical Incidents
    - Added obligation to assist ESA investigation of serious incident [12(3.1)]
    - Added definition of 'Force Majeure' and 'meter'
    - Expanded reportable scope to include meters (under 750V)

# LDC Mergers and Acquisitions

Alectra merger complete

# LDC Mergers and Acquisitions

#### 1<sup>st</sup> Alectra audit

- Approved Alectra CVP, processes for design approval, equipment approval
- Staff trained in processes

#### SatiStar

- ESA engaged SatiStar to conduct an independent review of the audit process used to assess compliance with the requirements of O.Reg 22/04, and to provide recommendations for improving them.
- Implementation of any recommendations are still pending.

Any Questions?

# **Auditor Debrief**

November 3, 2016

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 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 martin.post@electricalsafety.on.ca
 or jason.hrycyshyn@electricalsafety.on.ca

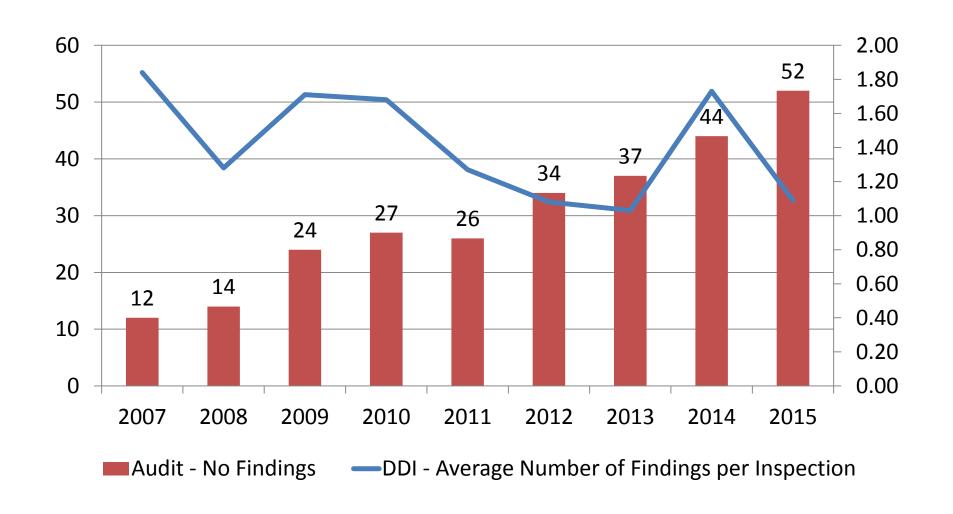
# **AGENDA**

- 1. Review of 2015 Audit results
- 2. 2015 Audit Findings
- 3. 2016 Questions & Issues / Auditor Feedback
- 4. Focus of 2016 Audits
- 5. Other Information
  - a) Bulletins
  - b) Other Issues
- 6. SatiStar Update

# Summary of Audit Findings for 2015

- 52 LDCs Full Compliance ('14-44)
- 22 LDCs Needs Improvement only
- 15 LDCs with only one finding
- 7 LDCs with more than two or more findings
- 3 LDCs had 1 Non-compliance
- 2 LDCs had more than 1 Non-compliance

# Summary of Audit Findings Life to Date



# Section 4/5 Audit Findings

#### Section 4/5 – Safety Standards

- Maintenance records inconsistently completed/no prioritization of findings
- Missed scheduled inspections of distribution equipment

# Section 6 Audit Findings

- Unapproved equipment used
- Procedure for review and approval for use of equipment returned from field not followed

# Section 7 Audit Findings

- No Certificate of Deviation Approval
  - accepted a verbal confirmation from a P.
     Eng regarding a deviation from an approved plan.
- Certificates of approval not completed for relay settings (DIB-13-12 Distribution System Control Component Setting.)
- Approved Standards not referenced on plans, layouts

# Section 8 Audit Findings

- Records of Inspection and Certificates not completed at time of energization
- Maintenance work and emergency work Records of Inspection are not being correctly completed in accordance with the C.V.P.
- Partial Certificates not regularly provided for lines and equipment energized in stages.
- Records of Inspection for secondary service inspections had incomplete checklists on the form.
- Records of Inspection for third party attachments are not being completed in a timely fashion
- Records of Inspection completed incorrectly by checking off multiple boxes on the Record of Inspection form

- Q. How should auditors respond when LDC's attempt to over-manage an audit?
- Discuss with the client.
- Notify ESA. Document.
- If needed, tell them you cannot complete audit. Document.

Q. LDC-1 was taken over by LDC-2. LDC-2 operated under its own license during a 4-month period and therefore needed to be audit for that period of time. The takeover had already been completed at time of the audit but no LDC-1 records were made available for auditing. How should an auditor respond?

A. See Auditing after Acquisition slides

# Auditing after acquisition

- When an LDC is acquired by another LDC it is important to ensure that Regulation 22/04 is still complied with by the new, larger entity
- Focus is on ensuring acquired distribution assets are incorporated into maintenance schedules/processes, acquired standards or inventory/equipment is approved for use, and personnel are trained in processes, standards, etc.
- Some sampling of previous LDC records may be useful to identify incomplete work, but should not be the focus

# Auditing after acquisition

- Section 4/5 acquired assets in the field are covered by appropriate maintenance processes;
- Section 6 any inventory (in stores or on trucks) is reviewed and either confirmed that it is already on the approved equipment list of Buyco or any unique assets are formally approved by Buyco or disposed of;
- Section 7 appropriate training for absorbed personnel in the Buyco standards & standards approval process is provided to design personnel & unapproved standards/plans are disposed of;
- Section 8 relevant staff from Soldco to be trained in the Buyco CVP and approved standards. As well, the CVP should be reviewed and updated if necessary to incorporate any new staff positions to be listed as qualified/competent.
- If these can't be verified, document in the audit report

- Q. OEB Appendix C specifies that "vegetation" must be patrolled at least every 3 years in urban areas and 6 years in rural areas.

  Appendix C, Note 10 defines "vegetation" as "encroachment on distribution lines". How should auditors respond when they notice overgrown distribution lines?
- A. Ask for records (when completed and when scheduled); try to assess the potential for hazards (tree climbing is a primary concern)

- Q. How should an auditor respond when partial certificates of inspection are not provided for lines and equipment energized in stages? Should this be shown as a noncompliance or a need for improvement?
- A. Failure to follow the approved CVP can be either a N/C or N/I. It is a judgment call by the Auditor as to the recurrence and severity of the audit finding.

- Q. When an LDC has contracted with a manufacturer for refurbishment of transformers, can the refurbished transformers be considered as 'new'? If so, under what conditions?
- A. No, refurbished equipment can not be treated as 'new'. Refer to bulletin <u>DB 05/14</u>

- Q. Some LDCs would like keep the equipment from the field for spare parts. I believe a competent person should approve and catalogue the parts to be used with a statement "no undue hazard".
- A. Section 2 of the Regulation states that Section 6 applies with respect to distribution systems that are designed or come into existence on or after February 11, 2004. Therefore the equipment used must be approved to meet the Regulation. The distributor may approve used or pre-regulation equipment under *Good Utility Practice*.

Sections 2.7.2, 2.7.5 and 2.7.6 of the Technical Guideline provide additional information on how to satisfy the Regulation for major and non-major equipment approval under *Good Utility Practice*.

- Q. Some LDCs' showed all the standards in a box on plans or attach with the plans. I found one LDC had a note, "All the work is in accordance with the latest edition of LDC's Stds. & Construction Manual. The plans were approved by a consultant and displayed professional engineer seal. I believe this is acceptable.
- A. If the standards are referenced and the P.Eng is signing off on the entire package that is acceptable. It can be seen as a "Plan" approved by that P.Eng at that point.

- Q. Visual Inspection of Cable Chambers; according to Appendix C (page 7) of OEB's Distribution System Code, visual inspection of the cable chambers may be difficult due to the presence of energized cables. Therefore, the cable chambers should be inspected during normal utility work which would require the utility to de-energize the equipment. In other words, the equipment should not de-energized simply to comply with the scheduled inspection routine. Any thoughts on this?
- A. ESA is in alignment with the OEB Appendix C. ESA would like the Auditor to see if there are any records and a system in place to have information while doing normal utility work reported back up as inspection reports to satisfy the Regulation. If there is no system (i.e. no expectation) for staff to record this data and there is no evidence this is ever done than that would qualify as a "Needs Improvement" item on an Audit, if it falls within the scope of Section 2 (Feb. 11, 2004). If it is out of the scope of Section 2 then an "Observation" would be an appropriate place to identify the finding.

- Q. DB-01-15 (In-Field Equipment Refurbishment) One LDC had an underground 1/0 cable refurbished with silicone injection. The LDC was not aware of the DB-01-15.
  - I was able to review where; the time sheets and the Purchase Order that the work was done by the contractor. The LDC inspects the terminations at the dip pole and the transformer. There was no formal process or time lines for this work. The project was done under the Capital Plan. Any thoughts?
- A. DB-01-15 identifies that Records of Inspection and Certificates shall be completed (Section 8), in order to comply with Regulation 22/04. In addition, the material need to be approved (Section 6) and the instructions to do the work should be approved (Section 7). ESA does not recognize that the Records of Inspection and Certificates can be filled out after energization, therefore this needs to occur in order to comply with Regulation 22/04.

#### Focus of 2016 Audits

#### Same as previous years:

- Auditors are requested to focus on the LDC's maintenance results (compliance with the Ontario Energy Board's Distribution System Code – App. C).
- In particular chambers (also known as vaults), and similar underground infrastructure is highlighted.
- Process for energizing projects in stages
  - should include the use of partial certificates
  - staff should be trained on the process
- Contractors not listed on CVP as qualified/competent signing off

# **Bulletins** published

- DB-01-16 Mitigation of Pole Top Fires
  - Proactive measures to mitigate pole top fires
- DB-02-16 Certificate of Deviation Certified Lists
  - how an LDC may demonstrate compliance with Regulation 22/04, with respect to deviations from required standards.
- DB-03-16 Life Saving Equipment Damage From Temporary Overvoltage
  - a process for LDC's to effectively communicate to their customers of the potential for damage from a temporary overvoltage event

# **Bulletins** published

- DB-04-16 EV Charging Stations Reg. 22/04, 570/05 and OESC Requirements
  - provides direction with respect to EV Charging Stations and was created to compliment the Ontario Energy Board (OEB) Bulletin issued July 7, 2016 regarding Electrical Vehicle Charging.
- DB-05-16 Connection Authorizations
  - how an LDC demonstrates compliance with the Ontario Electrical Safety Code (OESC) Rule 2-012 connection authorization. (replaces DIB-04-12)
- DB-06-16 Regulation 22/04 or Ontario Electrical Safety Code?
  - Update to DSB 05/07

#### Other Issues

- 1. ESA will be looking for Working Group volunteers in order to create Best Practices around the issue of Utility Owned Generators and Storage.
- 2. ESA will be looking for Working Group volunteers in order to create Best Practices around the issue of transformer connections to customers.

# LDC Mergers

#### Mergers and Acquisitions

- Haldimand Country Hydro Inc acquisition by Hydro One – license transferred to Hydro One.
- Woodstock Hydro acquisition by Hydro One license license transferred to Hydro One.
- Powerstream, Horizon, Enersource merger & acquisition of Hydro One Brampton – licenses still exist.

#### SatiStar

- ESA engaged SatiStar to conduct an independent review of the audit process used to assess compliance with the requirements of O.Reg 22/04, and to provide recommendations for improving them.
- Implementation of any recommendations are still pending.

Any Questions?

# **Auditor Debrief**

November 16, 2015

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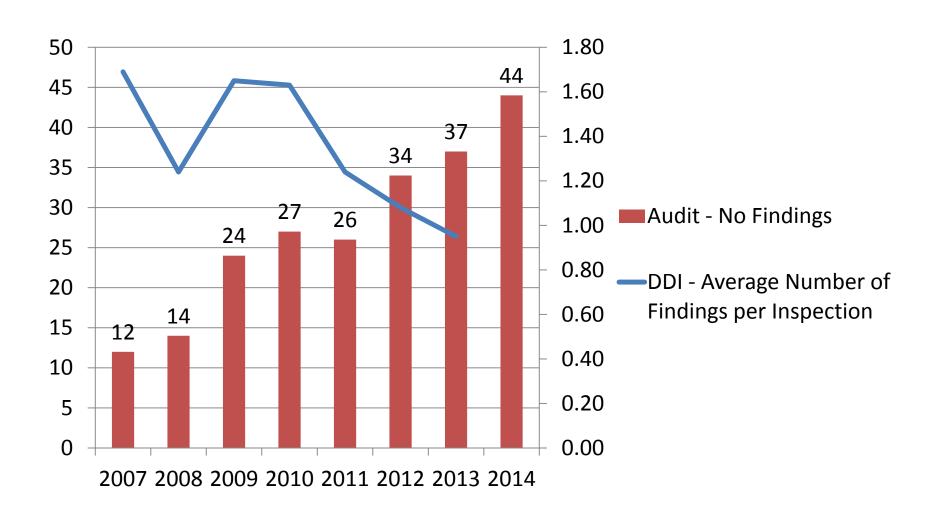
# **AGENDA**

- Review of 2014 Audit results
- 2. Common Audit Findings
- 3. 2015 Questions & Issues / Auditor Feedback
- 4. Focus of 2015 Audits
- 5. Other Information
  - a) Bulletins
  - b) Other Issues
- 6. SatiStar Update

# Summary of Audit Findings for 2014

- 44 LDCs Full Compliance ('13-37)
- 26 LDCs Needs Improvement only
- 16 LDCs with only one Needs Improvement ('11-27,'12-21,'13-23) and 3 LDCs with more than two Needs Improvements ('11-11,'12-6,'13-3)
- 2 LDCs had 1 Non-compliance
- 3 LDC had more than 1 Non-compliance

# Summary of Audit Findings Life to Date



# Common audit findings

#### Section 6 – Equipment Approvals

- Process for approving equipment returned from field or refurbished
  - No process documented or documented process not followed for approving equipment for re-use from field or refurbished/repaired.
  - Some equipment is returned to inventory without approval/approval records not documented
  - The documented procedures/policies should be updated to reflect current practice
  - DB-05-14 "Major Equipment Refurbishment" was issued for direction

## Common audit findings

#### Section 7 – Design

- Plans signed by persons not P.Eng.
   Must be registered with the PEO.
- Designs without certificates of approval
- Plan changes not approved /approval not recorded
- Designs not reviewed / approved for recloser protection settings or no Certificate of Approval

# Common audit findings

#### Section 8 – Construction Inspection and sign-off

- Maintenance schedules (section 4)
  - Documentation incomplete;
  - Lack of verification that entire system is reviewed on 3 or 6 year cycles.
  - No schedule for some equipment/ records unavailable
- Incomplete/missing Records of Inspection and/or Certificate
- Not all work being signed off small repairs & trouble calls
- Work energized in stages
  - Need Record of Inspection & Certificate at each stage of energization
- Missing Third Party attachment ROI/Certificates

#### **Auditor Statement**

Q. ESA should consult the auditor when an LDC wishes to dispute an auditor's report. I believe a review with the auditor is essential to ensure that ESA is fully aware of all information available to the auditor.

### Auditor Statement...Response

ESA agrees that when an LDC is disputing an audit finding that a discussion with the auditor will be beneficial.

ESA will review its current process for the audit report analysis to gather all relevant information prior to finalizing the annual Regulation 22/04 LDC Compliance Assessment

- Q. It was found in some instances that operations personnel had failed to follow the LDC's standards and engineering plans. The plans were not revised to incorporate the changes. Should the audit report show this as a noncompliance or opportunity for improvement?
- A. Failure to follow the approved Standards or Plans can be either a N/C or N/I. It is a judgment call by the Auditor as to the recurrence and severity of the audit finding.

- Q. Should failure to comply with the OEB's preventive distribution system maintenance standards be considered a noncompliance, opportunity for improvement or simply an observation?
- A. Failure to follow the approved maintenance standards/systems can be either a N/C or N/I. This should not be considered to be an Observation. It is a judgment call by the Auditor as to the recurrence and severity of the audit finding.

Q. Some LDC's consider that if they have a signed maintenance agreement with an equipment refurbisher, they can routinely consider refurbished equipment as new. Is this a correct interpretation? If so, are there any conditions?

A. DB-05-14 addresses this issue.

- Q. One third party attacher occasionally provides certificates of approval for their attachments with no consideration of the supporting structures. Any comments?
- A. ESA has always maintained that there should be "no gaps" in the planning. The consideration of the supporting structures may be addressed by the LDC providing that element of the plan by doing the engineering (performing calculations or using "Materially Insignificant" (see DB-07-15).

- Q. When construction drawings display no title blocks or drawing numbers and fail to identify the reviewer and approvers of the drawings, how should this be addressed in the audit report?
- A. Section 7(6) requires that the certificate of approval be kept by the distributor and made available to the Authority upon request. Therefore the approver's certificate of approval for the drawings should be available. A N/C or N/I may be recorded where it is not.

- Q. When an LDC's certificates of inspection show a "no undue hazards" wording rather than confirmation that plans were followed and approved equipment installed, how should this be shown in the audit report?
- A. The statement of "no undue hazards" is meant for emergency and like-for-like replacement. If it is used for "planned work" this should be recorded as a N/I at first and can be escalated to a N/C if the problem is recurring or pervasive.

- Q. Is it acceptable for lineman who complete overhead construction to sign the Record of Inspection and Certificate that includes underground installations that are part of the same project?
- A. The approved CVP should identify which positions are deemed competent/qualified to complete the ROI and Certificate for the various types of construction/installations (Overhead/underground/meters, etc.).

## Focus of 2015 Audits

#### Same as last year:

- Auditors are requested to focus on the LDC's maintenance results (compliance with the Ontario Energy Board's Distribution System Code – Appendix C).
- In particular chambers (also known as vaults), and similar underground infrastructure is highlighted.

## **Bulletins** published

- DB-01-15 In-Field Equipment Refurbishment
  - How to deal with cable injection programs and similar
- DB-02-15 Marking of Guys
  - Substantial and Conspicuous marking. Colours which blend into the background are not considered to satisfy the requirement.
- DB-03-15 Sensus iConATM Generation 3.2
   Remote Disconnect Meters
  - Technical Briefing Notification

# **Bulletins** published

- DB-07-15 "Materially Insignificant" Alterations
  - Definition introduced. Examples: flower pots and flags.
- DB-08-15 Reporting Meter Failures (750V or less)
  - Request for voluntary reporting of meter failures.
- DB-09-15 Approved Auditors (UPDATED)
  - Welcome Auditor Dal Cheema

#### Other Issues

ESA will be looking for Working Group volunteers in order to create Best Practices around the following items.

- 1. Section 12 Serious Electrical Incident Reporting
- 2. OEB Distributor Scorecards

# LDC Mergers

#### Mergers and Acquisitions

- Norfolk Power acquisition by Hydro One finalized
- Haldimand Country Hydro Inc acquisition by Hydro One – license still exists.
- Woodstock Hydro acquisition by Hydro One license still exists.
- Brant County Power Inc acquisition by Cambridge & North Dumfries Hydro Inc - license still exists.

#### SatiStar

- ESA engaged SatiStar to conduct an independent review of the audit process used to assess compliance with the requirements of O.Reg 22/04, and to provide recommendations for improving them.
- Implementation of any recommendations are still pending.

Any Questions?