
Electrical Distribution Safety

Asset Management from a Public Safety Perspective Working Group

Stage West
5400 Dixie Road, Mississauga

Attendees:

Neil Sandford	Burlington Hydro
Francis Szto	Toronto Hydro-Electric Systems Ltd
Herb Haller	Waterloo North Hydro Inc.
John O'Neill	Canadian Standards Association
William Schwarz	W.O. Schwarz Consulting
Paul Krupicz	Tiltran Services Inc
Ajay Garg	Hydro One Networks Inc.
Peter Petriw	Veridian Connections Inc.
Gaye-Donna Young	Newmarket-Tay Power Distribution Ltd
Lloyd Frank	Kitchener-Wilmot Hydro Inc.
Jerry Van Ooteghem	Kitchener-Wilmot Hydro Inc.
Brian McMillan	Greater Sudbury Utilities Inc.
Faisal Habibullah	Brantford Power Inc.
Michael Fulcher	CEP Forensic Engineering
Mike Wittemund	Guelph Hydro Electric Systems Inc.
Brian Stratychuk	Power Workers Union
Franz Kropp	Hydro Ottawa Limited
Doug Fairchild	PowerStream Inc.
John Barratt	Veridian Connections Inc.
Lorne Pasche	Welland Hydro Electric System Corp.
Peter Krotky	Automated Solutions International Inc.
Kazi Marouf	Guelph Hydro Electric Systems Inc.
Stephen Cress	Kinectrics
Yury Tsimberg	Kinectrics

ESA:

Jenifer Robertson	ESA
Jason Hrycyshyn	ESA
Patrick Falzon	ESA
Normand Breton	ESA

Copies:

Casey Malone	Hydro Ottawa Limited
John Mulrooney	PowerStream Inc.
Pierre Lemay	Hydro Ottawa Limited
Andre Perron	Hydro One Networks Inc.
Arlen Molyneaux	Guelph Hydro Electric Systems Inc.

Electrical Distribution Safety

1.0 Welcome and opening remarks

Herb Haller opened the meeting and reviewed the agenda with the working group. There were no additional items requested to be added to the agenda. The current agenda was accepted.

The previous meeting minutes were accepted.

2.0 Terms of Reference Review

Herb Haller reviewed the proposed revisions to the Terms of Reference. Due to concerns of working group members and the EDA related to the possibility of this initiative leading to more or duplicate regulation; revisions to the Terms of Reference were proposed to confirm this was not ESA's intention.

The working group agreed the Background portion of the Terms of Reference be moved to an appendix. After revising other wording in the Terms of Reference the document was accepted and is attached to the minutes.

The working group stressed the need to focus on deteriorating infrastructure that fails in an unsafe manner and sharing best practices to mitigate public safety risks. The working group felt there were currently good mechanisms within ESA and the industry to address "newer / younger" unsafe equipment failures and the focus should be on "older" infrastructure.

3.0 ESA Product Safety Risk Assessment Model

Jenifer Robertson introduced Normand Breton, the General Manager – Product Safety for ESA whose presentation is attached.

ESA Presentation:

- ESA explained the current reporting requirements for Product Safety
- Injury and Damage definitions were detailed for the working group that Product Safety utilizes
- ESA explained the current Risk Based Model the Product Safety utilizes:
 - Working Groups were established to create the Model
 - The response strategy changes depending on the events involved
 - The decision making process is transparent
 - Product Safety stresses a thorough understanding of the Product Defect
 - A weighting system is used to score the incident, using Likelihood and Severity of Impact
 - Corrective Action timelines are created and reflect the priority of the incident

Electrical Distribution Safety

Discussion:

The working group noted that in the Product Safety – Risk Based Model, a scenario classified as “Major Severity” is considered “High Risk” despite the low score on Likelihood.

The working group asked whether economic considerations were considered prior to initiating Corrective Actions. ESA responded that it does take into account economic impacts.

The working group asked whether ESA is looking to the United States of America’s central depository system or involved with the work of IEEE. ESA responded that it is working towards a central depository system within Canada and is involved with the IEEE and utilized the American and European systems in order to develop and refine the Risk Based Model.

4.0 Asset Management from a Public Safety Perspective Presentation

Yury Tsimberg, Director of Asset Management for Kinectrics presented the Kinectrics – Asset Management Safety Risk Assessment Model as is attached.

Kinectrics Presentation:

- Two aspects of Asset Management (i) Equipment Focus and (ii) Strategy Focus
- The working group was asked if any LDCs present had any failure curves for their Station Transformers. There was no response from the working group
- The Health Index was explained for the working group. It was noted that the Health Index does not necessarily include all risks with respect to public safety
- Failure rate curves demonstrations were presented
- Public Safety is one of a few categories that LDCs use when dealing with Asset Management. A risk evaluation matrix can be used to rank items and if they fall in to the “Unacceptable Risk Zone” or “Red Zone” then they must be dealt with. The working group recognized that one category could trump all the other categories and force an action to take place. The working group cautioned that the risk determination is a subjective exercise and could be interpreted differently depending on risk tolerance.
- The main categories that are predicted to rise to the surface are (i) confined spaces, (ii) overhead infrastructure, and (iii) substations
- The working group also stated that recognizing the precursor indicators that lead to failures is important.

Electrical Distribution Safety

5.0 Open Forum to Discuss Presentations:

Some members of the working group expressed concerns regarding how a risk evaluation matrix would be used to address infrastructure failures. The working group was curious how actual concerns (ex. #6 Cu primary overhead conductor) could be put into a system so the results could be analyzed. Would this example or any others make it into a “Red Zone”? The working group wanted to ensure the currently designed distribution system with its protection schemes are accounted for.

The working group discussed the scenario of an “electrical” Walkerton incident. The discussion of being able to demonstrate that the industry has systems in place to address public safety is very important. The working group brought up the concerns regarding additional reporting requirements.

The working group raised the concern that not all LDCs have the expertise to analyze the unsafe failures. ESA stated funding would be available to understand the root causes. The MEA used to fill this role, but it is no longer available.

ESA is seeking input to assess the risks and provide stakeholder input. The group was asked if it sees value in a Risk Assessment Model. Some working group members responded “yes” and others did not respond.

The working group decided that it would be a worthwhile exercise to have both a modified ESA Product Safety Risk Assessment Model and the Kinectrics Model analyze a scenario with #6 Cu overhead conductors and produce a report that would show the process.

The working group discussed Best Practices. It was agreed that the group doesn’t want to lose the idea around Best Practices. It was mentioned that the EDA has a repository for Best Practices on their website.

The working group discussed how a Risk Assessment Model would be performed. Would the information be reviewed by ESA or perhaps members of a committee?

Electrical Distribution Safety

6.0 Next Meeting

The next meeting will be held Monday, March 22, 2010. [Meeting has been postponed to a later date>](#)

The location of the next meeting will be Stage West at 5400 Dixie Road, Mississauga.

1. The meeting will be to review the results of a #6 Cu scenario run through the ESA and Kinectrics models.
2. Shared practices should be addressed

Meeting Adjourned

prepared by Jason Hrycyshyn