Electrical
Safety
Authority

For Your Safety

August 7, 2001

See Distribution List

RE: Establishment of Electrical Safety Regulations Governing Generation, Transmission and Distribution of Electricity in Ontario

Dear Sir/Madam:

The Electrical Safety Authority (ESA) is developing a Regulation to establish appropriate electrical safety standards and oversight of the licensed electricity distributors, transmitters and generators, pursuant to, section 113 of the *Energy Act. W*ithin the next eight-month period ESA wants to seek industry and stakeholder input, through a series of Discussion Groups to examine the details of the proposed Regulation. The dates, location and the agenda for these workshops (likely to begin in November) will be announced within the next two-three months.

The purpose of this letter is two-fold. Through this letter, the ESA is:

- Advising potential participants of further consultation on the development of this Regulation. A copy of the ESA Discussion Paper supporting this process can be found on the ESA website (www.esainspection.net).
- Seeking nominations to participate with the Discussion Groups in the development of the Regulation.

Discussion Groups [1]

Background and Description:

The ESA and Ministry of Consumer and Business Services (MCBS) believe that stakeholder participation is critical to the development of the Regulation. The Ontario electrical industry has a relatively good track record with respect to public electrical safety. It is obviously the intent and desire of all industry stakeholders to protect this foundation. The Regulation, and the supporting referenced code and compliance process, will establish minimum technical safety standards to address public electrical safety, and is intended to build on this foundation as much as possible.

[1] A more detailed description of the scope and composition of these Discussion Groups is provided in the attached Terms of Reference document.

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ESA staff is now developing the options, organizing the material to be distributed to the Discussion Groups and developing the list of parties who will be participating. Enclosed are the Terms of Reference describing the objectives and responsibilities of these groups. A separate group will be formed to address each of the Distribution, Transmission and Generation areas. At this time, ESA is seeking nominations for participation in each of these Discussion Groups.

Composition

Following a structure similar to that used in the development of national standards, it is the intent of ESA to ensure that the Discussion Groups are comprised of a balanced representation of all interested stakeholders. Approximately one-third of the Discussion Groups will therefore be parties representing owners/operators/constructors of electricity distribution, transmission or generation (i.e. licensed entity, commercial associations, and service providers to the licensed entity), with the balance representing non-commercial interests (e.g. consumer groups, employee groups) and regulatory/governmental agencies. In addition, as much as possible, the ESA would like to have representatives from different sizes of utilities or generators. Discussion group participants representing the interests of utilities or generators should have knowledge of day-to day operation of licensed systems, system planning, and design and/or construction experience.

Since the number of participants from each interest area will be restricted, discussion groups will-if necessary- also be comprised of voting members and non-voting members ("observers"). Observers will be able to participate in discussions, both verbally and in writing, but will not be eligible to vote on recommendations.

Participation

If you or someone from your organization is interested in participating in one of these Discussion Groups, please provide the following information to Sue Stephens by fax at 905-507-4572or by e-mail at sue.stephens@electricalsafety.on.ca. It is imperative that the groups are established as quickly as possible so that material can be distributed to interested participants on a timely basis. Therefore, it would be greatly appreciated, if the following information were submitted no later than August 24, 2001.

- Name
- Organization
- Desired status:
    - Voting
    - Non-voting (observer)
- Position title and a brief (one paragraph) description of the individual's responsibilities
- A brief (one paragraph) description of the organization (e.g. size, number of customers/kilometers served, ownership)
- Telephone number, fax number and e-mail address

The schedule and location of meetings will be established shortly. It is expected that most meetings will be held at the ESA's offices in Mississauga. For those parties who are unable to participate in person, summaries of recommendations will also be posted on the ESA web site, and parties are invited to submit written comments. The ESA will distribute these comments to all Industry Discussion group participants.

If you have any questions relating to the consultation or the underlying framework, please feel free to contact me at 905-712-5363.

Yours sincerely,

Peter Marcucci
Vice President and Chief Engineer
Electrical Safety Authority

Attachments

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Terms of Reference

Electrical Utility Regulation Industry Discussion

Background

Section 113(1) of the Electricity Act provides the statutory framework within which the ESA operates. This legislation assigns the ESA authority, with the approval of the Lieutenant Governor in Council, for making regulations for public electrical safety[2] related matters ranging from the design to the use of electricity in each of generation, transmission, distribution and retail use of energy. In essence, this statutory authority assigns to the ESA the responsibility and accountability for ensuring electrical safety in all electrical installations.

Specifically, the statutory authority provides that the ESA may set regulations in the following areas[3]:

- Prescribing the design, construction, installation, protection, use, maintenance, repair, extension, alternation, connection and disconnection of all works and matters used or to be used in the generation, transmission, distribution, retail or use of electricity in Ontario;
- Prohibiting the use in Ontario of any such works or matters until they have been inspected and approved;
- Providing for the inspection, test and approval of all such works and matters before being used;
- Adopting by reference, any code or standard and requiring compliance with any code or standard that is so adopted
- Subject to the approval of the Minister, may establish the fees to be paid for permits and for inspection, test and approval of all such works and matters mentioned above and of plans and specifications relating thereto.

Currently, the regulation governing electrical safety, as embodied in the Ontario Electrical Safety Code ("OESC")[4], provides that every act or omission in connection with the generation,

[2] Throughout this report, the term's electrical safety and public electrical safety are synonymous and used interchangeably. In the context of the work that the ESA performs, it defines "public" as including people working on electrical infrastructure as well as members of the general public having contact with electrical infrastructure. It interprets the phrase to mean the requirement to address or recognize all factors impacting upon electrical safety including a safe physical electrical infrastructure; recognizing the linkages between this infrastructure and safe working practices; and public electrical safety education.

[3] Source: Selected excerpts from Section 113, Electricity Act

[4] Ontario regulation 164/99, under the Electricity Act, deems that the Canadian Electrical Code Part I together with some Ontario Hydro Revisions constitute The Ontario Electrical Safety Code.

transmission, distribution, retail or use of electricity in Ontario is to be done or made in compliance with the Electrical Safety Code. However, Rule 2-000 (a) of the OESC exempts certain functions performed by electric utilities. This exemption has been in place for many decades. Under the largely publicly owned utility structure that existed in Ontario, individual electric utilities established and maintained their own safety standards for their franchise area. With respect to electrical safety electricity generation, transmission and distribution utilities are essentially self-regulated.

The Electrical Safety Authority has monitored the impacts of electricity industry restructuring on electrical safety. As the industry restructured a number of issues arose which raised the current regulatory framework and the concept of "self regulation" into question. In light of this restructuring the Electrical Safety Authority recommended to the Minister of Energy Science and Technology and Minster of Consumer and Commercial Relations a review the regulatory framework that currently applied to the generation, transmission and distribution of electricity to determine what changes may be required to ensure that electrical safety is maintained or even improved as a result of this industry's restructuring.

In 2000, ESA initiated a review of how the province might revise the safety oversight system so as to accomplish this goal in an effective way. In this review, the ESA evaluated the approach taken in other jurisdictions and industries, including the Ontario natural gas industry, the availability of technical standards for reference in regulations, and held discussions with 13 key stakeholders (approximately 42 individuals) to obtain their feedback and input.

ESA believes there is a need to address gaps in safety regulations. The current regulatory framework does not address public electrical safety specific to utility installations. Other jurisdictions with restructured markets have mandatory codes and compliance processes built into legislation.

National technical standards are available to address safety concern areas identified and there should be explicit reference to national design standards in legislation. The function of standards is to serve as a floor to protect against degradation in infrastructure design and construction over time and /or the introduction of lower standards by participants seeking a short term cost advantage. Finally a compliance process based substantially on certification of design and an audit framework should be developed.

Further, from stakeholder interviews with the Ministry of Labour ("MOL"), the Ministry of Energy Science and Technology ("MEST"), the Ministry of Consumer and Business Services ("MCBS"), the Ontario Energy Board ("OEB") and the Independent Electricity Market Operator ("IEMO"), it is clear that these agencies expect the ESA to address public electrical safety related matters with respect to utility infrastructure.

In February 2001, the ESA submitted the Discussion Paper to the MCBS advising them of their proposed approach and next steps, including an industry discussion review process. Specifically, in order to provide for input, and take advantage of stakeholder expertise, the ESA proposed a public consultation to finalize which standards should be referenced in regulation, and the details of the audit-based compliance and verification processes, including its' potential integration with the OEB licensing processes.

The Electrical Safety Authority, with the MCBS approval[5], is now initiating this discussion process so as to put forward recommendations on revised electrical safety regulations that will address the changes occurring in the generation, transmission and distribution of electricity. With the cooperation and assistance of industry and other stakeholders, the ESA is hopeful that this process will be completed and the recommended approach put forward to the MCBS by May 2002.

Objective & Scope

The objective of this industry discussion is to review the ESA proposals and provide comments to assist ESA in the development of the requisite standards and corresponding compliance processes which will be referenced in Regulation. The Regulation will then be presented to the Ministry of Consumer and Business Services ("MCBS") for its consideration, and ultimately for passage into law.

Scope

The primary topics for discussion will be a series of documents entitled "Summary of Recommendations" ("SOR") specific to: the approved standards for underground, overhead and stations infrastructure in each of distribution, transmission and generation areas, and; the compliance process. In order to accomplish this, the discussion group will, at a minimum, review in detail the following:

- The recommended standards as they pertain to public electrical safety specific to: clearances; grounding; access to unauthorized personnel, and; mechanical and structural infrastructure/ equipment;
- The compliance mechanisms, including the information flows;
- The transition plan to the new regulatory framework;
- Integration with the existing regulatory and governmental framework (i.e. OEB, MOL, Coroner, IEMO);

Specifically, the Discussion Groups will perform the following functions:[6]

(a) Consideration of all formal proposals or requests for revision of, or amendment to the proposed Utility Regulation and Standards, including the Compliance Processes;

(b) Recommendation re: the adoption of such revisions or amendments;

(c) Comment and advise on the form and wording of such revisions or amendments;

(c) Comment and advise on the form and arrangement of the Utility Standards.

[5] See attached letter from Minister Jim Sterling, Ministry of Consumer and Business Services.

[6] Note that the Industry Discussion Group for each of the distribution, transmission and generation area is an advisory body. The final adoption of any revision or amendment is vested with the Electrical Safety Authority and the Lieutenant Governor in Council, pursuant to The Electricity Act.

Criteria for comment may be based on but not restricted to consideration of such questions as;

(a) Does the proposed revision concern public safety?

(b) Is the proposed standard technically sound, economically justified and practically achievable?

(c) Is the wording of the proposed revision clear and unambiguous?

(d) Is the proposed revision in conflict with other recognized standards for installing electrical equipment or other provincial regulations?

ESA staff and/or designated consultants will help facilitate the work of the Discussion Groups and will provide coordination between the groups and other ongoing effort, as needed.

Level of Effort and Timing

The MCBS has directed [7] that the development work for this Regulation be completed by early 2002 and be in place to support market opening. Thus, it is essential that this effort be completed as soon as possible. ESA staff anticipates starting the in-depth work of consultation with the Discussion Groups in mid November, with completion in roughly five months. It is anticipated that the Discussion Groups to address the Distribution network will be first to begin, followed by Transmission and Generation. Some work will likely occur in parallel. During this period, each Discussion Group will likely convene every second week for approximately 6-10 meetings.

Structure

The Committee composition shall be set with the objective of ensuring that all points of view pertinent to the subject matter are represented in reasonable proportion, in accordance with the following matrix:

	Minimum Voting Members	**Maximum Voting Members**
Government and Regulatory	5	7
Owner/ Operator/Constructor and their Associations/ Commercial Suppliers	7	9
General Interest	7	9

The Government/Regulatory/ESA representatives will be selected to provide views from such groups as regulatory authorities, government agencies and ESA inspectors.

[7] Ibid.

The Owner/ Operator/Constructor representatives will be selected to provide views from such groups as the Distributors, Transmitters or Generators licensed by the Ontario Energy Board, contractors, equipment suppliers and designers of generation, transmission or distribution systems.

The General Interest representatives will be selected to provide perspective from consumers, labour, workplace safety agencies, and other parties not directly connected with the regulation, ownership, operation, design, construction or equipment associated with generation, transmission or distribution.

Membership[8] will be obtained through nomination directly or through appointments by the various provincial associations that represent the viewpoints of certain parties affected by the Utility Regulation, Standards and Compliance Processes.

Required Skills and Experience

A variety of skills and experience will be required for the successful completion of this effort. For participants representing commercial interests (e.g. licensed parties (distributors, transmitters, generators)) the primary need is for individuals with detailed knowledge of existing infrastructure, including design and construction standards in both large, medium and small utility settings. This knowledge should include both those standards in place in Ontario as well, ideally, as those which are available internationally. For other parties, knowledge of the Ontario energy regulatory framework would be extremely beneficial.

[8] Note: The number of voting members will be limited as per the matrix above. Other interested parties may be able to attend as observers and/or participate via electronic means.