



Guideline for Proximity to Distribution Lines

Ontario Regulation 22/04

Electrical Distribution Safety

January 12, 2005



Legal Disclaimer.

This document contains GUIDELINES ONLY to assist members of the industry in interpreting Ontario Regulation 22/04 - Electrical Distribution Safety - made under subsection 113(1) of Part VIII of the Electricity Act, 1998. These guidelines do not have the force of law. Where there is a conflict between these guidelines and any legislation or regulation which may apply, the relevant law prevails.

Retention Periods stated in the guidelines set out the minimum period for which referenced documents are to be retained. Each distributor needs to make its own assessment of the appropriate retention period for specific documents based on its assessment of risk factors and potential liability.

What is included in this Guideline?

The purpose of this document is to provide guidelines for distributors and excavators on how to comply with Section 10 of the Electrical Distribution Safety, Ontario Regulation 22/04.

The Guideline includes advice on situations that are identified in Clause 1 and Clause 2 of Section 10 of the Regulation that refer to objects being placed too close to distribution lines:

- how to get a copy of the CSA(Canadian Standards Association) Standard C22.3, No. 1-01 Overhead Systems and CSA Standard C22.3, No. 7-94 Underground Systems to find out what the accepted minimum clearances are;
- how to prevent situations where clearances to lines are not met;
- how to resolve non-conformance situations; and
- how to handle the rare occasions when a distributor would authorize a variance to the minimum CSA standards.

A separate guideline entitled “**Guidelines for Excavating in the Vicinity of Distribution Lines**” provides advice for excavators and distributors on how to meet their obligation with respect to Clause 3 and 4 of Section 10 of the Regulation.

What are the CSA Standard minimum clearances?

The minimum clearances are outlined in the CSA Standard C22.3, No. 1-01 Overhead Systems and CSA Standard C22.3, No. 7-94 Underground Systems. To determine what is acceptable or not in terms of clearances it is important for distributors to have the most recent copy of the CSA Standards and ensure that the minimum requirements are incorporated into their standard design. The Standards can be purchased by calling 1-800-463-6727 or the on-line store at www.csa.ca

What are other requirements for clearances?

In addition to the CSA standards noted above a number of other governing codes and standards specify additional requirements that builders and property owners are required to meet.

If objects are placed closer than the CSA minimum clearances, it is likely that the builder or property owner is not meeting other requirements such as:

- Ontario Building Code (1997) Section 3.1 (3.1.18.1)
- Electrical Safety Code Rule 75-312
- Occupational Health and Safety Act (OH&SA) - Construction Projects (Electrical Hazards)

For instance, a sign may meet the CSA clearances; however, a worker installing, maintaining or dismantling the sign may not meet OH&SA safe limits of approach.

How to Prevent the Occurrence of Unauthorized Installations

Objects referred to in the Regulation could be:

- buildings, scaffolding, signs, antennas, flagpoles, etc. for overhead situations; or
- sign posts, excavation shoring, building foundations, gas pipelines, communication cables, poles, anchors, etc. for underground situations.

Prevention of situations where objects are placed too close to overhead distribution lines will minimize safety risks and the need to resolve potentially hazardous situations.

The local municipal or regional urban planning department may have planning processes in place to review proposed zoning amendments, official plan amendments, and site plan applications from developers and builders. Typically, these applications are circulated to local service organizations that may be affected by the proposed development such as the fire department, school board, water and sewer departments and the Local Distribution Company. The distributor should be responding to the planning department specifying the minimum clearances that need to be met prior to the planning department granting approvals to build or develop the private property.

In certain cases the planning department may allow developers to build with zero set back: i.e. to build right up to the property line. When this occurs in an overhead distribution area and the proposed development encroaches on the minimum clearance envelope, it may be necessary for the developer to consider

redesigning the building. Alternatively, the lines may need to be moved or buried, as a condition to granting building approval. Similarly, if a developer is building for example an underground parking garage that encroaches on an underground distribution line, the excavation or the shoring may conflict with existing underground distribution lines.

It is therefore important that the distributor communicate the need to maintain minimum clearances to the planning department so that planners become aware of the need to contact the Local Distribution Company, if they are not already doing so, for any development that may impinge on overhead or underground line clearances. In turn, the distributor needs to respond to the planning department specifying the requirements where the proposed development has insufficient clearances to existing distribution lines, before such applications are approved.

Recourse for Distributors in the event that objects are placed, or found to be, in close proximity to Distribution Lines

When a distributor witnesses during the course of its operation that an object is being placed or is too close to an energized distribution line, the distributor is to advise the person in charge of the job on site or the owner of the object of the required minimum clearances. The intent is to reach a temporary solution that mitigates any existing hazard and to develop a mutually agreed upon plan that complies with the minimum clearances, within a reasonable time.

Where the distributor has not authorized the placement of an object closer to an energized distribution line and the object owner does not rectify the non-conformance within a reasonable time, the distributor will notify ESA, who in turn may carry out its own investigation.

Exceptions (rare) to CSA Minimum Standards

The intent of Section 10 (1) and (2) is not to encourage the installation of objects at less than the minimum standards. In any case, prior to authorizing an owner to place an object closer to energized distribution lines than the minimum standards, the Distributor is to ensure that the object does not create a hazard to the safety of any person.

Where a distributor authorizes an object to be placed closer to an energized line than the minimum clearance, the distributor is to submit a report to the ESA outlining the rationale for allowing the exception to the minimum standards and why a hazard does not exist for the any person.

Recourse for Distributors in the Event of Violation to Safe Limits of Approach to a Distribution Line

When a distributor's representatives witness during the course of their work that a member of the public, or an unauthorized worker, is closer than the safe limits of approach, they are urged to talk to the person in charge of the job on site and make them aware of the hazardous situation.

If the violation of the safe limits of approach persists, the distributor's representative should refer the situation to an appropriate authority such as the ESA (for a member of the public) or Ministry of Labour (for a worker), who in turn may carry out their own investigation.