
Clearances from Existing BC Hydro High Voltage Overhead Conductors and Transformers

This bulletin discusses clearances of building constructions from the existing BC Hydro high voltage overhead conductors and pole-mounted dielectric liquid-filled transformers.

Discussion

The CSA C22.1 Canadian Electrical Code Part I; Safety Standard for Electrical Installations, regulates minimum installation requirements of high voltage overhead conductors and dielectric liquid-filled transformers

- Conductors shall not be installed over buildings.
Guarding of live parts and exposed conductors – Bare and exposed conductors and other live parts shall be accessible only to authorized persons; and isolated by elevation or by barriers.
System voltages in excess of those voltages specified in CSA C22.1, Tables 32, 33 and 34 for conductors and live parts isolated by elevations, the elevations and clearances maintained shall be in accordance with the requirements of CSA C22.3 No. 1; Overhead systems.
- Dielectric liquid-filled transformers containing more than 46 L in one tank, or 137 L in a group of tanks, and installed outdoors shall not be located within 6 m of any combustible surfaces or material on a building; any door or window; or any ventilation inlet or outlet.
Notwithstanding the foregoing requirements, the transformers shall be permitted to be installed within 6 m of any above-noted item, provided that a wall or barrier with non-combustible surfaces or material is constructed between the transformers and that item.
The foregoing dielectric liquid-filled transformers shall be inaccessible to unauthorized persons; and not obstruct firefighting operations.

Conductors and bare live parts operating at high voltage can pose a threat to human life. Under certain fault conditions occurring on dielectric liquid-filled transformer, the burning liquid or leaking dielectric-liquid might reach the building that could constitute a hazard.

Although the Code mandates minimum clearances and distances of high voltage conductors and dielectric liquid-filled transformers from the adjacent structures and buildings, the intent of Code requirements are not limited to purely measurements; rather these Code rules provide requirements for safeguarding persons and property from any hazards associated with the electrical equipment.

Development / Construction

When any part of your development or construction is planned in proximity to existing BC Hydro electrical works, contact BC Hydro for project review and comment; to ensure any potential impact or risks from your proposed development or construction will be assessed and addressed.

(Original signed by)

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