

Electrical Rooms With High Voltage Equipment

The purpose of this brochure is to explain the City's requirements for the installation of high voltage electrical equipment in electrical rooms.

"This information is provided for convenience only and is not in substitution of applicable City Bylaws or Provincial or Federal Codes or laws. You must satisfy yourself that any existing or proposed construction or other works complies with such Bylaws, Codes or other laws."

According to Sections 2 and 36 of the Electrical Code only authorized persons may have access to electrical rooms containing high voltage equipment rated at more than 750 volts.

Furthermore, B.C. Occupational Health & Safety Regulation (B.C. Reg. 296/97) states that electrical equipment rooms and vaults must be used only for the purpose for which they are intended.

In order to comply with the above requirements by ensuring that unqualified personnel do not have access to such rooms, rooms with high voltage electrical equipment shall contain only electrical service and distribution equipment. All other equipment not associated with the electrical service, such as telephone, fire alarm and security systems cabinets, data communication and optical fibre boards, miscellaneous ducts and plumbing pipes, including water, gas, sewage and sprinkler, etc. are not permitted in high voltage electrical rooms.

The concern remains for electrical rooms where the mixing of water and high voltage electrical equipment is considered dangerous, even though the equipment may be shielded from the actual water spray.

In sprinklered buildings, no sprinklers shall be located in electrical room with high voltage equipment and such room shall comply with the following requirements:

- The room is dedicated to electrical service and distribution equipment only.
- Only dry-type electrical equipment is used.
- No storage is permitted.

- A 2-hour fire separation is provided between the electrical room and the remainder of the floor area with all electrical penetrations fire-stopped. No other penetrations are permitted.
- Provide adequate ionization smoke detectors connected to the fire alarm system and enunciated separately. For buildings without fire alarm system, ionization smoke detectors can be connected to a local fire alarm.

Please contact the Building Department at 604-294-7130 for further questions.

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