

---

BULLETIN 2003-002-EL

APRIL 19, 2007

---

## INSTALLATION OF SERVICE ENTRANCE OPTICAL FIBRE CABLE IN A BUILDING

---

This bulletin clarifies the requirements for installation of a service entrance optical fibre cable in a building. *Note: This Bulletin has been correlated with the BC Hydro.*

### BACKGROUND

In recent years communication services to numerous buildings have been modified so as to incorporate optical fibre lines. In a majority of newly constructed buildings (buildings constructed in 2000 and later), such communication services have been designed by utilizing a communication optical fibre cable, installed in a dedicated raceway and terminated in a separate communication service room. However, where such communication services were intended to be modified in existing buildings (buildings constructed prior to 2000), BC Hydro had developed specific guidelines and licensee agreement to allow installation of third party nonconductive optical fibre communication cables in BC Hydro ducts and manholes on public property or right-of-way. As a result of such an agreement, these optical fibre cables had to enter the existing building (a private property) via existing electrical service ducts entering BC Hydro manholes and had to be installed in electrical equipment rooms or vaults.

Recognizing that such installations may violate provisions of the City of Vancouver Bulletin 2000-045-EL, BC Hydro staff has developed the following requirements for installation of a service entrance nonconductive optical fibre cable in an empty electrical service duct (or within a subduct in a duct occupied by the BC Hydro service neutral):

1. Installation of the optical fibre cable is done by a registered electrical conductor under an electrical permit and all preparatory and subsequent work in the vicinity of BC Hydro service cables is done in the presence of a qualified BC Hydro safety watcher; and
2. The method of egress of the optical fibre cable from the electrical service duct in the vicinity of the BC Hydro cables, pull-pits and service cable termination compartments is acceptable to the BC Hydro and to the District Electrical Inspector.

Note: These BC Hydro requirements are intended only for nonconductive optical fibre cables. This arrangement is not allowed for conductive or hybrid optical fibre cables.

### RULING

Installation of service entrance optical fibre cables in the electrical service ducts in conformance with the afore stated BC Hydro requirements may be permitted in the City of Vancouver subject to the following conditions:

1. The installation is intended only in the building that was constructed prior to 2000.
2. Optical fibre cables are re-routed from an electrical service room to the point of their termination via a dedicated pull box installed in the acceptable area of the electrical service room.

3. A special permission requested by the installing contractor for each specific installation is granted by the City Electrician; and
4. A letter from the BC Hydro is provided by the installing contractor stating that the installation requires a BC Hydro safety watcher who will provide access and will visually identify BC Hydro cables, to ensure that work in proximity to BC Hydro cables is done safely.

A. Z. Tsisserev, P.Eng.  
CHIEF ELECTRICAL INSPECTOR AND  
CITY ELECTRICIAN