

Proposal Number: 2018-OA-017

**Rule 75-904**

**Description of Change: Amend Specification 41 to include height requirements  
for a pole mounted transfer device**

**Submitted by: Electrical Safety Authority**

**Background:**

Pole-top transfer devices are often seen in rural installations in conjunction with a Central Metered (CM) or pole mounted farm service. For typical pole mounted farm service installations, the pole-top transfer device is installed on the load side of the service box. However, in the case of CM services, the pole-top transfer device is connected directly to the service conductors ahead of any overcurrent protection and Specification 41 does not indicate a minimum height. A typical pole-top transfer device and generator installation is shown in Figure 1.

*Figure 1*



**Rationale:**

A Central Metering System (CMS) is unique in Ontario. Rule 75-902 permits a standard pole-mounted distribution transformer, without a secondary breaker, to supply multi-service installations. Not more than four subdivisions of the service are permitted to extend from a transformer pole. Each building fed from the CMS requires a service box meeting the requirements of Section 6. For convenience, it is desirable to install a transfer switch at the

transformer pole location to allow a standby generator to power the entire distribution during a power outage. Locating a transfer switch in accordance with the current wording and Specification 41, the pole top will minimize the risk of not providing overcurrent protection, or not being service entrance rated. In addition, and as seen in Figure 2, the pole-top transfer device is mounted in close proximity to the high voltage transformer bushing and overhead lines.

*Figure 2*



The vast majority of pole-top transfer devices have been installed without fusing. Should a failure occur the equipment is considered to be isolated by elevation when mounted 2.5m above finished grade. It is important to note, the conductors on the load side of the pole-top transfer device that supply the outbuildings, are considered protected as defined in Rule 14-100(g).

Additional changes:

- Revised Rule numbers in the title: The current Rule numbers were referencing non-existent Rules.
- Revised item #8 to specify a #4 bare copper conductor: Currently item #8 indicates “Minimum bare copper” Inspectors and installers have questioned what size is required in which there was inconsistency what size is required. This is now consistent with specification #34 and #40.
- Added new item #10 to specify the size of the meter base bond conductor: This was item #8 which has now been given a new item number to avoid confusion for new note #7 which will only apply to item #10.
- Added note #7: Some supply authorities provide the meter base bond conductor inside the meter base and metering mast as per their engineered approved standards. Bonding is done above the weather-head.

**Proposed Change:**

**Amend Specification 41**

**Specification 41  
Metering: Central metering for secondary drop-leads 4/0 and smaller**

[See Rules 6-116, 75-904(4), 75-806, 75-904(1) and 75-902(5)(e)]

