

Construction Industry Communication #049

From: Amit Ghosh, Chief Building Official

Re: Emergency and/or Standby Power Supplies

Date: May 15, 2017

Requirements: Ohio Building Code (OBC) Section 2702.2 stipulates that certain systems in buildings be provided with standby and/or emergency power supply. Such systems are most commonly required in high-rise buildings.

The National Electric Code (NEC) permits the use of a separate utility service as a means for providing the emergency or standby power as long as it is approved by the Authority Having Jurisdiction for emergency or standby use and meets the following additional requirements:

- Separate overhead service connectors, service drops, underground service conductors, or service laterals are installed.
- The service conductors for the separate service are installed sufficiently remote electrically and physically from any other service conductors to minimize the possibility of simultaneous interruption of supply.

Background: AEP Ohio operates four (4) networks in downtown Columbus. The four networks are independent of one another and do not share network circuits or transformers. Each network is designed to operate for a double contingency, meaning the network is still fully operational without two network circuits energized. Thus, the network system provides a high level of reliability and service contingency.

Memorandum: Utility services are permitted as emergency and standby services in the City of Columbus for high-rise and other buildings, as necessary, under the following conditions:

- The supply is connected to what the serving utilities have designated as the “downtown loop”. This is a redundant power loop of circuits that are fed by the four networks. Locations outside of this loop cannot use a separate utility service as a source of emergency or standby power.
- Within the downtown loop, the “service conductors” of the normal and emergency or standby services must originate from different vaults and meet the two requirements of the NEC as outlined above.

For additional information, please contact electricinfo@columbus.gov.