



CARBON MONOXIDE DETECTION

POLICY AND GUIDE FOR CARBON MONOXIDE DETECTION IN COMMERCIAL STRUCTURES

The recently approved addition of the New York State Fire Code to address the needs for the life safety requirement of carbon monoxide "CO" detection in all new and existing commercial buildings that have sources of CO within the Town of Babylon has raised questions regarding the implementation of this new law. The following is an explanation of the law and direction on its implementation within the Town of Babylon. Carbon monoxide detectors or alarms are required for all existing and new buildings that have sources of carbon monoxide, or garage (motor vehicle related occupancy). Detectors or alarms shall be installed in new buildings, structures, or tenant spaces upon installation of a fire alarm system or at time of construction. Detectors or alarms shall be installed and tested within existing buildings, structures, and tenant spaces no later than June 27, 2016.

Unless otherwise stated and required here within this document the basic installation requirements shall conform to the NYS code requirements as currently published.

New Commercial Occupancies:

Carbon monoxide detectors/alarms shall be installed as part of a fire alarm system in new occupancies that require a fire alarm system to be installed or as a stand-alone system. These device installations shall be submitted as part of or as the fire alarm system plan submission with the required fees and paperwork.

Stand-alone systems shall include a fire alarm control panel monitored by a UL listed central station, appropriate CO detectors, and either sounder bases and/or integral sounders at each of the CO detectors, or non-fire horn strobes installed as per NFPA 72 regulations. Permit required. Three sets of plans, cut sheets, battery calculations shall be submitted for review and approval. Permit fee applies as per posted per device schedule. Witness test required.

- CO detectors shall report to the fire alarm control panel, or control unit as a carbon monoxide alarm.
- CO detectors, upon activation shall activate the fire alarm notification appliances in a temporal 3 pattern.
- CO detectors, upon activation shall report to the central station as a general alarm for a carbon monoxide detector activation. Central station shall dispatch the fire department and report the same.
- Activation of a CO detector and the fire alarm shall cause the evacuation of the building, or shall be handled as per your approved emergency plans.
- Activation of a CO detector shall perform fan shut down of all fuel fired forced air heating equipment within the protected building.
- CO detector at end of life shall cause a trouble on the fire alarm control panel or control unit.



Town of Babylon Fire Marshal's Office Technical Bulletin

CARBON MONOXIDE DETECTION

Deputy Commissioner Patrick Farrell
281 Phelps Lane Rm 16, North Babylon, NY 11703
P: (631) 893-2153 F: (631) 893-2162

Release Date: 11/15/15
Form: FMO-CMD
E-Mail: babylonfiremarshal@townofbabylon.com

New occupancies that do not require the installation of a fire alarm system shall install plug-in, battery back-up or hard-wired carbon monoxide detectors/alarms shall be installed as required and shall be UL 2034 listed (or equivalent listing agency). If the units are to be battery operated, only a 10-year lithium battery style unit shall be permitted.

- Under this section, building owners, maintenance personnel, or electricians are permitted to install these devices as per the manufacturer directions.

Existing Commercial Occupancies:

Where a fire alarm system or monitoring of a fire sprinkler system is maintained within an existing occupancy, the carbon monoxide detectors/alarms shall be interconnected to the existing fire alarm or sprinkler monitoring system. These devices shall be installed by a NYS licensed alarm company or installer.

Stand-alone systems shall include a fire alarm control panel monitored by a UL listed central station, appropriate CO detectors, and either sounder bases and/or integral sounders at each of the CO detectors, or non-fire horn strobes installed as per NFPA 72 regulations.

The installation of carbon monoxide detectors shall constitute a modification to the existing fire alarm equipment, and shall adhere to the following guidelines

Existing Fire Alarm Systems: Permit required. Three sets of plans, cut sheets, battery calculations shall be submitted for review and approval. Permit fee applies as per posted per device schedule for new fire alarm installation. Witness test required.

Sprinkler Monitoring System Only: Permit required. Three sets of shop drawings, cut sheets, battery calculations shall be submitted for review and approved. Permit fee is fixed at \$175.00 regardless of device count. Witness test required.

Stand Alone Systems: Three sets of plans, cut sheets, battery calculations shall be submitted for review and approval. Permit fee applies as per posted per device schedule. Witness test required.

- In buildings, structures, or tenant spaces where fire sprinkler monitoring is in place, activation of the CO detectors shall report to the alarm panel as a carbon monoxide alarm, and shall activate any attached fire alarm notification devices in a temporal 3 pattern, i.e. outdoor horn strobe.
- Detectors are required to utilize sounder bases and/or have integral sounding devices. The activation of one device shall cause the activation of the fire alarm control panel, any attached horn strobes, and all sounder bases or integral sounding devices to activate.
- CO detectors, upon activation shall report to the central station as a general alarm for a carbon monoxide detector activation. Central station shall dispatch the fire department and report the same.



Town of Babylon Fire Marshal's Office Technical Bulletin

CARBON MONOXIDE DETECTION

Deputy Commissioner Patrick Farrell
281 Phelps Lane Rm 16, North Babylon, NY 11703
P: (631) 893-2153 F: (631) 893-2162

Release Date: 11/15/15
Form: FMO-CMD
E-Mail: babylonfiremarshal@townofbabylon.com

- Activation of a CO detector and the fire alarm shall cause the evacuation of the building, or shall be handled as per your approved emergency plans.
- Activation of a CO detector shall perform fan shut down of all fuel fired forced air heating equipment within the protected building, if equipped within the existing fire alarm system.
- CO detector at end of life shall cause a trouble on the fire alarm control panel or control unit.

Where an existing occupancy does not maintain a fire alarm or sprinkler monitoring system, plug-in, battery back-up or hard-wired carbon monoxide detectors/alarms shall be installed as required and shall be UL 2034 listed (or equivalent listing agency). If the units are to be battery operated, only a 10-year lithium battery style unit shall be permitted.

- Under this section, building owners, maintenance personnel, or electricians are permitted to install these devices as per the manufacturer directions.

If any questions arise regarding applicability, systems design, or application please contact our office to speak with a Fire Marshal.

Carbon Monoxide Detection Frequently Asked Questions

1. Are carbon monoxide detectors/alarms required?

Carbon monoxide detectors/alarms are required in one- and two-family dwellings and townhouses as specified in the 2010 Residential Code of New York State, section R313 and regulated by the local building authority.

All other occupancies (to which this document applies) are regulated by the Town of Babylon Fire Marshals Office, and as of January 1, 2016 are required to have carbon monoxide detectors/alarms. Buildings which contain dwelling units, sleeping units or sleeping areas must also conform to the provisions of the 2010 Fire Code of New York State, Section 610.

2. What types of carbon monoxide detectors and alarms are permitted?

All carbon monoxide detectors/alarms shall be UL listed; and may be system-connected or in certain circumstances plug-in, battery-operated or hard-wired depending on the situation and location requirements. UL 2034 covers single and multiple station units, UL 2075 covers detections systems and devices.



Town of Babylon Fire Marshal's Office Technical Bulletin

CARBON MONOXIDE DETECTION

Deputy Commissioner Patrick Farrell
281 Phelps Lane Rm 16, North Babylon, NY 11703
P: (631) 893-2153 F: (631) 893-2162

Release Date: 11/15/15
Form: FMO-CMD
E-Mail: babylonfiremarshal@townofbabylon.com

3. Where must carbon monoxide detectors/alarms be located?

The locations of carbon monoxide detectors/alarms in dwelling units, sleeping units and sleeping areas are specified in the 2010 Fire Code of New York State, Section 610. All other areas shall have carbon monoxide detectors/alarms located in a central location on every habitable level, in each tenant area of a multiple tenant building and in any room with a potential source of carbon monoxide. Assembly Group A occupancies shall have additional devices in every room with an occupant load of fifty (50) or more. **In all cases, locations shall conform with the NYS Fire Code and comply with manufacturer's specifications.**

4. Are there any prohibited locations for carbon monoxide detectors/alarms?

Carbon monoxide detectors shall not be located where prohibited by manufacturer's specifications. Depending on manufacturer, prohibited locations may include in kitchens, furnace rooms and garages, specifically where carbon monoxide detectors/alarms cannot be located farther than 3 meters (9.8 feet) away from the source. In small rooms with a source, it may not be possible to add devices. Carbon monoxide detectors/alarms shall not be located within ducts or within 3 feet of an HVAC register.

5. Who may install carbon monoxide detectors/alarms?

A NYS licensed alarm installer must perform all work when the newly added devices are interconnected to a fire alarm and smoke detection system, or in new occupancies where a fire alarm and smoke detection system is required. In existing occupancies where single- or multiple-station devices are permitted, the occupant may install plug-in or battery-operated devices, or a licensed electrician may install hard-wired devices.

6. Do plans need to be submitted to the Fire Marshal's Office prior to installation?

Plans shall be submitted to the Fire Marshal's Office prior to installation where a fire alarm and smoke detection system is also required, or where a fire alarm and smoke detection system is already present and the building is undergoing alternations, repairs or construction which impact said system. Additionally, if an existing fire alarm system is modified or augmented a permit and plans are required.

7. What audible alarm signal must carbon monoxide detectors sound?

Carbon monoxide detectors attached to a fire alarm and smoke detection system, shall sound a temporal three alarm sequence via the fire alarm system. If the CO detector has its own built in sounder, most likely that sounder will ring temporal 4.