STATE OF CONNECTICUT
DEPARTMENT OF CONSTRUCTION SERVICES
OFFICE OF STATE FIRE MARSHAL
OFFICE OF STATE BUILDING INSPECTOR

December 12, 2011

To: INTERESTED PARTIES

From: **Robert J. Ross** ~ STATE FIRE MARSHAL
OFFICE OF STATE FIRE MARSHAL

Joseph V. Cassidy, PE ~ ACTING STATE BUILDING OFFICIAL
OFFICE OF STATE BUILDING INSPECTOR

Subject: ***CONNECTICUT PUBLIC ACT 11-248***
CARBON MONOXIDE DETECTORS IN SCHOOLS

With the adoption of Public Act 11-248 effective July 1, 2011, Connecticut State Legislature requires the installation of carbon monoxide (CO) detection and warning equipment in all school buildings, public or private. The Public Act requires the installation of detectors in all new school buildings for which a permit for construction is issued on or after January 1, 2012. The requirements for existing school buildings will be included in the next adoption cycle of the State Fire Safety, Fire Prevention and Building Codes are revised. The process for the next code cycle is just beginning and normally takes several years to complete.

In response to this legislation, the Office of State Fire Marshal, in conjunction with the Office of State Building Inspector, have developed the following interim guidelines to be used utilized until such time that State Fire Safety, Fire Prevention and Building Codes are revised to contain requirements for the installation of these systems.

The 2012 edition of NFPA 720, *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*, will be used as the basis of our requirements. The requirements found in this standard are essentially extracted from NFPA 72, *National Fire Alarm Code*. This standard was developed to provide requirements intended to warn occupants of the presence of carbon monoxide in sufficient time to either escape or take other appropriate action including summoning aid in both residential and commercial applications.

The carbon monoxide (CO) warning equipment must meet or exceed Underwriter's Laboratories standards UL2034 and UL 2075 as prescribed by the Public Act.

UL 2034 ~ Standard for Single and Multiple Station Carbon Monoxide Alarms
UL 2075 ~ Gas and Vapor Detectors and Sensors.

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Although this CO detection equipment might also respond to the gases produced by unwanted fires, it is not intended to be fire detection or warning equipment. Further, our requirements are not intended to address health concerns or worker safety with respect to exposure to carbon monoxide nor other migrating sources of carbon monoxide such as vehicles, barbeque grills or other propane fired equipment. Essentially our requirements are intended to serve as combustion safety devices, not indoor air quality monitors.

Permit for Newly Constructed Schools on or after January 1, 2012

The use of single or multiple station CO alarms, any battery operated CO alarms or any 120-volt AC powered CO alarm equipment that has a battery installed in the detection unit as backup power source is not permitted for newly constructed schools. It is intended that new schools be provided with system CO detectors connected to the building fire alarm system.

CO detection system components shall be installed, tested and maintained in accordance with the manufacturers' published instructions and NFPA 720. Chapter 8 of NFPA 720 provides the minimum frequencies for the inspection, testing and maintenance of CO alarms, detectors, systems and their components.

For the purposes of satisfying Public Act 11-248, CO detectors shall be installed in accordance with the manufacturers' published instructions and shall located within any room containing permanently installed fuel-burning heating equipment. CO detectors shall be located as remotely as possible from the heating appliance.

The detectors shall be connected as a separate zone or zones to the fire alarm signaling system, but shall only activate a supervisory signal at the main control unit and any remote annunciators. The CO detection shall not activate the building evacuation alarm.

Any room containing the fuel-burning heating equipment and CO detection shall be provided with a sign at all entrances to the space indicating that a CO detectors are located inside the space.

Existing School Buildings

Until the requirements for carbon monoxide detection and warning equipment are incorporated into the fire and building codes, there is no enforcement action taken as the lack of such a system is not a violation of our current state codes. The following recommendations may be used as guidance for those schools wishing to be proactive with respect to their facilities.

The use of battery operated CO warning equipment or any plug-in equipment that has a battery as it backup power source may be used in existing school buildings.

For the purposes of satisfying Public Act 11-248, CO detectors shall be installed in accordance with the manufacturers' published instructions and shall located within any

room containing permanently installed fuel-burning heating equipment. The detection shall be located as remotely as possible from the CO producing appliance.

If connected to the fire alarm signaling system, the CO detection shall only activate a supervisory signal and shall not activate the building evacuation alarm.

CO detection system components shall be installed, tested and maintained in accordance with the manufacturers' published instructions and NFPA 720. Chapter 8 of NFPA 720 provides the minimum frequencies for the inspection, testing and maintenance of CO alarms, detectors, systems and their components.

Any room containing the fuel-burning heating equipment and CO detection shall be provided with a sign at all entrances to the space indicating that a CO detectors are located inside the space.

Any question relating to this matter can be directed to Terry Brouwer of the Office of State Fire Marshal at 860-685-8350 or email at terry.brouwer@ct.gov.