

CLEARING THE AIR

Residential Ventilation Issues by Dara Bowser & Bob Allison

Carbon Monoxide Detectors - Current Status

Carbon Monoxide Detectors (CO Detectors) were first called out in the 1993 OBC. At first, there was confusion as to standards, interlock with smoke alarm systems and what to do in an alarm situation.

10 years later, the OBC has been updated so that CO Detectors are now required in most new homes in Ontario, the acceptance standards are clear, interlock easily done and emergency service providers have protocols in place as to how to respond to alarms.

Let's review the current requirements:

Application: All buildings of residential occupancy (regardless of size) which contain a combustion appliance or a storage garage must have a CO detector. The only buildings which are exempt would have no garages and are electrically heated, or are connected to a district energy system or remote combustion device such as a back-yard boiler.

Location: When a combustion appliance is located in the residential suite, then the CO detector must be located adjacent to each sleeping area. When a combustion appliance is located in a service room which is part not part of a residential suite, a detector must be located in the service room and adjacent to the bedrooms of the suites which are adjacent to the service room. Similarly, CO Detectors are required adjacent to the sleeping areas of any suites which are adjacent to a garage.

Installation: Permanent connection to an electrical circuit is required and the detector must be interconnected to any other CO detectors in that suite. The alarm must be audible within the bedrooms when the intervening doors are closed.

Effective Date: The current requirements ((Ontario Regulation 283/1) have an effective date for building permits issued on or after August 6th, 2001. For permits issued prior to August 6th, construction must be started within six months of permit issuance in order remain exempt.

Acceptable Detectors: CO Detectors must meet one of two standards:

- 1) UL 2034-1996. A detector meeting this standard can be recognized by the C-UL or ULc mark. Most CO Detectors sold in Canada should meet this standard.
- 2) CAN/CGA/CSA-6.19-M93 (R1999). A detector meeting this standard can be recognized by blue flame CGA/CSA logo.

This standard has an effective date of January 2, 2002.

Note: *The standard CSA circular mark does not indicate conformance to the above standards. It usually only indicates conformance to electrical shock and fire requirements.*

Retrofits and Renovations: Compliance alternatives similar to those for smoke detectors can be applied. These would allow plug-in or battery operated detectors in certain situations. (See Branch Opinion below).

9.32 Solid-Fuel Requirement No Longer in Effect: Sentences 9.32.3.8.(2),(3),(4) and (5) set out requirements for a CO detector located within 12" of the ceiling in a room that contains a solid fuel appliance. These requirements have been removed, but of course a CO detector is required adjacent to sleeping areas under the new requirements, and the home must also be equipped with an HRV as per sentence 9.32.3.8.(6).

More Information: The regulation itself can be found at <http://obc.mah.gov.on.ca/New/Oreg283-2001.html>. A very helpful Branch Opinion can also be found at http://obc.mah.gov.on.ca/opinions/part9/Carbon_Monoxide_Det.html. A very detailed piece from the Ontario Fire Marshall's Office can be found at <http://www.gov.on.ca/OFM/99commun/co-det-ect.htm>. The Technical Standards and Safety Association (TSSA, formerly the Fuel Safety Branch) has public- information type material at http://www.tssa.org/about_tssa/carbon_monoxide.asp.

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NOTE: The opinions expressed in this column are those of the writers and do not reflect the views of HRAI, OBOA or any other agency, corporation or individual.