



Owen Sound

MEMORANDUM

To: Fire Services Committee **From:** Ed Nowak
Dept: Fire & Emergency **Dept.:** Fire & Emergency
Division: **Division:** Fire Chief

DATE: February 23, 2005

SUBJECT: CARBON MONOXIDE DETECTOR BYLAW

COMMENTS:

City Council, at its meeting held on February 14, 2005 referred “back to the Committee [Fire Services Advisory Committee] for further consideration and recommendations and a formal report to Council from the Fire Chief including past research that has taken place by the Fire Department as well as addressing public education.”

BACKGROUND:

In April of 2003, a report was prepared for City Council by the then Fire Chief outlining the advantages and disadvantages of a Carbon Monoxide (CO) Detector Bylaw for the City of Owen as well as outlining considerations if a Carbon Monoxide Detector Bylaw were to be enacted. At the time a survey was undertaken [2003] by the Firefighters during the annual Home Visitation Program to determine the number of homes that had CO detectors. The results were evenly divided with half having CO detectors in their homes. Although the survey was not carried out in 2004, it has been reinstated and will become an ongoing component of the annual Home Visitation Program, which covers 20% of the community each year.

The Home Visitation Program provides the opportunity for Firefighters to work with the homeowner (or resident) in determining fire safety violations as well as addressing measures to correct them and responding to concerns. In addition, Firefighters take the opportunity to speak with the homeowner about operating smoke detectors, the importance of family fire safety plans, proper use of fire extinguishers, fusing and the proper storage of flammable and other materials. This also provides an opportunity to remind the homeowner that heating devices, gas water heaters, chimneys and fireplaces be inspected annually and cleaned as required. Brochures and fire safety information is provided for the homeowner and their family to review at their convenience.

The Ontario Building Code was amended in 1987 to require the installation of CO detectors in new homes as well as identifying the locations for CO detectors.

Installation and Conformance Standards for CO Detectors

- (1) The carbon monoxide detector required by Article 9.33.4.2 and subsection 6.2.5.A shall:
 - (a) Be permanently connected to an electrical circuit and shall have no disconnect switch between the over current device and the carbon monoxide detector,
 - (b) Be wired so that its activation will activate all carbon monoxide detectors within the suite, where located within a suite of residential occupancy,
 - (c) Be equipped with an alarm that is audible within bedrooms when the intervening doors are closed, where located adjacent to sleeping area, and
 - (d) Conform to
 - (i) CAN/CGA-6.19, "Residential Carbon Monoxide Detectors",
 - (ii) CSA 6.19, "Residential carbon Monoxide alarming Devices", or
 - (iii) UL 2034, "Single and Multiple Station Carbon Monoxide detectors".

Location of Carbon Monoxide Detectors

- (1) Where a fuel-burning appliance is installed in a suite of residential occupancy, a carbon monoxide detector shall be installed adjacent to each sleeping area in the suite.
- (2) Where a fuel-burning appliance is installed in a service room that is not in a suite of residential occupancy, a carbon monoxide detector shall be installed
 - (a) adjacent to each sleeping area in every suite of residential occupancy that is adjacent to the service room, and
 - (b) in the service room.
- (3) Where a storage garage is located in a building containing residential occupancy, a carbon monoxide detector shall be installed adjacent to the storage garage.
- (4) Where a storage garage serves only the dwelling unit to which it is attached or built in, a carbon monoxide detector shall be installed adjacent to each sleeping area in the dwelling unit.

PREVENTATIVE MEASURES:

A carbon monoxide detector acts as a secondary or defence mechanism after ensuring that the primary safety measures are addressed and in place. The primary safety measures in preventing a build-up of carbon monoxide in the home are:

1. Having a qualified service technician inspect and clean fuel-burning appliances and furnaces at least once a year;
2. Arranging for annual inspections and cleaning by qualified professionals of vent pipes, exhaust fans and chimney flues for blockages that may interrupt ventilation flow;
3. Not using natural gas, propane, charcoal grills, space heaters, pressure washers or outdoor fuel-burning apparatus inside your home or garage even if the doors are wide open;
4. Not idling your car, snow blower or lawn mower in the garage.

ADDRESSING CONCERNS:

There are a number of concerns if a Carbon Monoxide Bylaw is implemented:

1. Will the implementation of a Carbon Monoxide Bylaw have an impact on the effectiveness of the Home Visitation program? If a homeowner is in non-compliance of the bylaw, will they refuse entry fearing a fine and thereby preventing the opportunity for a fire safety inspection? Currently we have a very low incidence of structure fires in homes where the majority of fire injuries, deaths and fire loss occur.
2. Enforcement and the right of entry. A number of fire departments were surveyed to determine if they currently have a Carbon Monoxide Detector Bylaw in place (attached). Of those responding, the Bylaw or Property Standards Departments provide enforcement. Enforcement typically occurs after an incident where there is suspected CO poisoning. The Bylaw Department is only allowed into someone's residence, with their permission - which they have the right to refuse and the Bylaw Enforcement Officer must tell them so, unless it is an imminent life safety issue. Bylaw inspects multiple residences on a complaint basis - so they wouldn't be inspecting just to ensure the required detector was in place.
3. Reluctance, delay or hesitancy on the part of the homeowner to call the fire department for alarms other than CO if they have any suspicion or concern that they may be charged for not having a CO detector installed.
4. Cost - while smoke detectors can be purchased in bulk and effectively have the cost reduced to approximately \$5.00 for a certified smoke alarm, carbon monoxide detectors are rarely seen below the \$30.00 threshold, which may make it prohibitive if one per floor is required. Those concerned with the potential of carbon monoxide poisoning will have already purchased and installed an approved carbon monoxide detector.

5. Non-compliance – whether through acts of omission or of not being aware of the municipal legislative requirements in this regard.

PUBLIC EDUCATION:

Public education plays a primary role in personal safety education. The fire service is heavily involved in public education through and will implement and integrate carbon monoxide information into the following:

1. Learn Not to Burn
2. School programs
3. Home Visitation Program
4. Brownies, Cubs and Guides
5. Public displays
6. Presentations
7. Older and Wiser
8. Alarmed for Life
9. Fire Safety Days
10. Station tours
11. Hazard house
12. Home fire safety education programs

ACTIONS:

The carbon monoxide program regardless of a bylaw being enacted will be expanded upon the importance of having approved carbon monoxide detectors in the home. This will be accomplished in a number of ways:

1. Home Visitation Program – Firefighters will monitor and survey the number of residences that have carbon monoxide detectors installed noting the age of the residence, number of detectors and whether they are battery operated or electrical. In addition, where no CO detector exists, explain to the homeowner or resident explain about carbon monoxide, the seriousness of carbon monoxide poisoning, precautionary measures and the importance of installing a certified CO detector. Information will also be left with the homeowner to whom they can refer to later.
2. Public education whereby at every display or event information and material will be made available on carbon monoxide, a variety of carbon monoxide detectors. Manufacturers and suppliers will be encouraged to provide information and/ or participate in these venues where appropriate.
3. Use the media to provide the information to the general public in seasonal messages emphasising the importance of maintenance of fossil fuel appliances, etc. take advantage of the advertising available with the Sun Times in City advertisements.
4. Rogers Cable has provided a good community partnership and continues to do so. In many areas around the Province, Rogers outlets provide one minute safety spots and those are a perfect opportunity to extend the information on CO detectors to the general public.

5. WEB Site – general information will be posted on the fire department WEB site regarding carbon monoxide, precautions, signs and symptoms, what to do if you feel you exhibit these, signs, etc. as well as links to other sights that bear information pertaining to carbon monoxide such as the Fire Marshall Public Safety Council information:
<http://www.firesafetycouncil.com/english/pubsafet/co.htm>
6. Pamphlets made available at City Hall and other City facilities that are accessed by the general public on carbon monoxide and related information indicated above.
7. Meeting with owners of multi-residential units regarding carbon monoxide detectors and their effectiveness in order to have these placed in key locations and residences.

OPPORTUNITIES:

In addition to public education, there may be areas where opportunities exist or can be created so that the installation of a working carbon monoxide detector is more affordable and manageable will be explored such as:

1. Bulk purchasing of CO detectors in an effort reduce costs thereby making it more manageable for purchase by the general population;
2. Insurance companies can play a part by ensuring that residents have a working CO detector when they renew their insurance, even to the extent of a small reduction in their annual insurance premium.

Respectfully submitted,

Ed Nowak, Fire Chief
Owen Sound Fire & Emergency Services

**Survey of Fire Departments currently having
carbon monoxide detector bylaws in place.**

Department	Yes	No	No Response
Ajax		X	
Brampton	X		
Burlington			X
Chatham			X
Galway-Cavendish & Harvey (Bobcaygeon)		X	
Georgina	X		
Grimsby			X
Guelph			X
East Gwillimbury			X
Bradford-West Gwillimbury			X
Halton Hills (Georgetown)			X
Hamilton		X	
Kawartha Lakes		X	
Kingsville			X
Town of Lakeshore (Belleville)		X	
Markham		X	
Midland		X	
Milton		X	
Mississauga	X		
Niagara Falls		X	
North Bay		X	
Orangeville	X		
Orillia			X
Parry Sound			X
Quinte West			X
Richmond Hill			X
Straford		X	
Sudbury		X	
Thunder Bay			X
Timmins		X	
Toronto	X		
Vaughan	X		
Waterloo		X	
Welland		X	
Whitby			X
Windsor		X	