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	Subject	Council Bill 09-0369 - Building Code - Dwellings - Carbon Monoxide Alarms		

To: President and Members
of the City Council
c/o
409 City Hall

July 15, 2009

The Baltimore City Health Department is pleased to support Council Bill 09-0369, which makes minor changes to current statute requiring **the installation and maintenance of carbon monoxide.**

This bill follows in the footsteps of other statutes nationwide that require carbon monoxide monitors in homes. The bill provides a small change to an already existing statute. The current statute states that the installation of the alarm should be attached to the wall and that owners maintain at least one carbon monoxide alarm in dwellings with carbon monoxide risks, including fuel-burning appliances, a fire place, and/or an attached garage. Council Bill 09-0369 adjusts the current statute by stating that properly installed carbon monoxide alarms can be attached to the wall or ceiling.

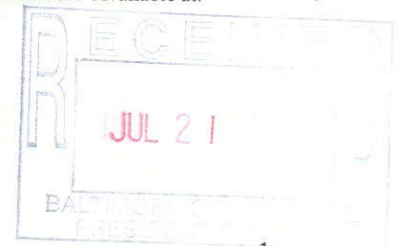
Carbon monoxide is a poisonous gas produced as a by-product of incomplete combustion of carbon-based fuels. At low concentrations, carbon monoxide exposure can cause nausea, head-aches and fatigue in healthy people and chest pain in people with heart disease. At high concentrations, exposure can be fatal.¹ The elderly, pregnant women, young infants, and people with pre-existing cardiac or lung conditions, are the most susceptible to negative health effects associated with carbon monoxide exposure.²

Carbon monoxide related deaths and hospitalizations are preventable. In Baltimore, according to a preliminary analysis of mortality records, there were twenty deaths due to accidental exposure to carbon monoxide between 2000 and 2006.³

¹ U.S. Environmental Protection Agency. Office of Radiation and Indoor Air. *Protect Your Family and Yourself from Carbon Monoxide Poisoning*. October 1996. Available at: http://www.epa.gov/iaq/pdfs/co_factsheet_en.pdf

² U.S. Department of Housing and Urban Development. *Healthy Homes Issues: Carbon Monoxide*. October 2007. Available at: <http://www.hud.gov/offices/lead/healthyhomes/carbonmonoxide.cfm>

³ Baltimore City Health Department, Mortality Records, 2000- 2006.



There is evidence of significant levels of non-fatal exposure to carbon monoxide in Baltimore and nationwide. However, a complete account of non-fatal exposure is not possible due to a lack of mandated reporting. Nationally, it is estimated that approximately 15,200 persons with confirmed or possible non-fire related CO exposure are treated annually in hospital emergency departments.⁴ In Baltimore, there have been multiple reports of non-fatal poisonings. Thus far in 2008, the media has reported that at least six residents of Baltimore city have been sent to the hospital due to carbon monoxide exposure in their homes.^{5 6} In one of the cases, a non-working furnace led two men to heat their home with a stove, which ultimately leaked CO into the home.⁷ In 2007, four members of a Baltimore city family, including two children, were hospitalized for carbon monoxide exposure caused by their home's basement furnace.⁸ In 2005, twelve people were hospitalized for exposure in one home.⁹

Data from the Maryland Poison Control center show that Baltimore residents are concerned about carbon monoxide. In the past two years, there have been 45 carbon monoxide-related calls made to the 1-800 number. All 45 calls were confirmed as poisonings.

A large majority of carbon monoxide poisoning cases (both fatal and non-fatal) occur in the home. Carbon monoxide exposure in homes is most often a result of indoor combustion appliances which are either malfunctioning, or are being improperly used.¹⁰ The risk of malfunctioning appliances is greater in older homes, which are more likely to have older appliances and/or lack central air conditioning. In Baltimore, half of the housing stock was built before 1940¹¹ In addition, unintentional carbon monoxide poisonings can occur in homes because of occupant behavior and/or lack of knowledge about potential sources of CO (e.g., utilizing an oven as an extra source of heat.⁷ Initial results from surveys by sanitarians and community health workers in the Healthy Homes Inspections and Health Services program reveal that many Baltimore residents are

4 Centers for Disease Control and Prevention. Unintentional Non--Fire-Related Carbon Monoxide Exposures in the United States, 2001-2003. *Morbidity and Mortality Weekly* 54 (2005): 36-39.

5 WBAL TV Baltimore. "Adult, Child Hospitalized After Carbon Monoxide Leak." January 14, 2008. <http://www.wbaltv.com/news/15047254/detail.html>

6 WJZ Baltimore. "NE Baltimore Rowhouse Evacuated for CO Poisoning." February 2, 2008. <http://wjz.com/local/carbon.monoxide.rowhouse.2.644664.html>

7 ABC2 News Baltimore. "Carbon Monoxide Poisoning Sends Two People to Hospital." January 4, 2008

8 Erwin, Richard. "Carbon Monoxide Sickens Family." *The Baltimore Sun*. April 16, 2007.

9 WJZ Baltimore News. "Carbon Monoxide Scare Evacuates Baltimore Neighborhood" November 2005. <http://video.aol.com/video-detail/carbon-monoxide-scare-evacuates-baltimore-city-neighborhood/756461036>

U.S. Department of Housing and Urban Development. *Healthy Homes Issues: Carbon Monoxide*. October 2007. <http://www.hud.gov/offices/lead/healthyhomes/carbonmonoxide.cfm>

11 Newman, Sandra J. "Low-End Rental Housing: The Forgotten Story in Baltimore's Housing Boom." The Urban Institute: Research Reports. (August 30, 2005). <http://www.urban.org/url.cfm?ID=311222>