HB 1038

Department of Legislative Services

Maryland General Assembly
2009 Session

FISCAL AND POLICY NOTE

House Bill 1038 (Delegate Robinson, *et al.*)
Environmental Matters

Public Safety - New Construction - Carbon Monoxide Alarms and Radon Detectors

This bill requires installation of at least one "carbon monoxide alarm" (in addition to current carbon monoxide alarm requirements) and at least one "radon detector" on each level, including a basement but excluding an attic, of each specified newly constructed residential dwelling for which a building permit for new construction is issued on or after January 1, 2010.

Fiscal Summary

State Effect: Potential additional costs for some new construction of State-owned qualifying dwellings (such as dormitories) associated with the inclusion of additional carbon monoxide alarms after January 1, 2010. The scale and scope of such potential costs are not expected to be significant.

Local Effect: Varying carbon monoxide alarm installation costs for construction of publicly owned dwellings (such as public housing) in all jurisdictions after January 1, 2010. It is assumed that compliance for all construction projects related to radon detectors and carbon monoxide alarms could be handled with the existing resources of ongoing construction permitting and inspection processes in each jurisdiction.

Small Business Effect: Minimal additional construction costs after January 1, 2010 for some developers and builders of dwelling units.

Analysis

Bill Summary: A "radon detector" is a device that senses radon; when sensing radon is capable of emitting a distinct and audible sound; is listed and carries the listing of a nationally recognized testing laboratory, as approved by the State Fire Marshall; and is wired into an alternating current (AC) powerline with secondary battery backup. As pertains to radon detector installation, a "dwelling" is a building or part of a building that provides living or sleeping facilities for one or more individuals, and includes a one-, two-, or multifamily dwelling. Radon detectors are required for newly constructed residential dwellings that contain AC electrical service and are classified as residential by the most recent edition of the National Fire Protection Association Life Safety Code adopted by the State Fire Prevention Commission.

A radon detector may be combined with a smoke alarm or a carbon monoxide alarm if the combined device complies with State law regarding smoke and carbon monoxide alarms and complies with specified Underwriters Laboratories standards for smoke and carbon monoxide alarms.

A local government is not restricted from enacting a more stringent law relating to radon detectors. A radon detector may not be rendered inoperable, except during routine maintenance.

Current Law: Chapter 401 of 2007 required a "carbon monoxide alarm" to be installed in a central location outside of each sleeping area, or a centralized alarm capable of warning all occupants, within specified dwellings newly constructed after January 1, 2008. Chapter 401 defines a "dwelling" as a building or part of a building that provides living or sleeping facilities for one or more individuals, and includes a one- or two-family dwelling, multifamily dwelling, hotel, motel, or dormitory. The requirements for installation of carbon monoxide alarms only apply to a dwelling that relies on the combustion of a fossil fuel for heat, ventilation, hot water, or clothes dryer operation. Disclosure of whether carbon monoxide alarms have been installed must be included as part of real estate sale disclosure forms for covered dwellings.

A local government is not restricted from enacting a more stringent law relating to carbon monoxide alarms. A carbon monoxide alarm may not be rendered inoperable, except during routine maintenance.

Residential dwelling units built after 1990 are required to have both battery backup and alternating current smoke detectors. Each sleeping area within an occupancy classified residential, as defined in the most recent edition of the National Fire Protection Association Life Safety Code adopted by the State Fire Prevention Commission, must be equipped with at least one approved smoke detector installed in a manner and location

approved by the State Fire Prevention Commission. When activated, the smoke detector must provide an alarm suitable to warn the occupants.

An occupant of a one-, two-, or three-family residential dwelling constructed before July 1, 1975 must equip and maintain each occupant's living unit with at least one approved battery or AC primary electric powered smoke detector.

A landlord must install smoke detectors. On written notification by certified mail by the tenant or on notification in person by the tenant, the landlord must repair or replace the smoke detector. If the tenant personally notifies the landlord of the failure of a smoke detector, the landlord must provide a written receipt acknowledging the notification. A tenant may not remove a smoke detector or render a smoke detector inoperative.

If there is clear evidence that an exception will not adversely affect the fire safety of a building or its occupants, the State Fire Marshal or a local authority with jurisdiction over the enforcement of fire and building codes may grant an exception to: (1) a requirement of a State or local fire and building code if a required sprinkler system is installed in a building; or (2) the sprinkler system requirement if, on or before June 30, 1990, the local authority gave approval to a construction plan for a dormitory, hotel, lodging or rooming house, multifamily residential unit, or town house, and the approved plan did not include the installation of a required sprinkler system. The State Fire Marshal or a local authority may not grant an exception under these provisions to a smoke detector requirement.

A seller of single-family residential real property must complete and give to the purchaser a written disclosure or disclaimer statement about the condition of the property before executing the contract of sale, including whether the smoke detectors will provide an alarm in the event of a power outage and whether a carbon monoxide alarm has been installed for those properties required to have one (or more).

Background: Carbon monoxide is an odorless, tasteless, invisible gas. Carbon monoxide results from the incomplete combustion of fossil fuels, such as wood, kerosene, gasoline, charcoal, propane, natural gas, and oil. According to the *Journal of the American Medical Association*, carbon monoxide poisoning is the leading cause of accidental poisoning deaths in the United States. Motor vehicles are the most common cause of these accidents.

In the home, it is formed from incomplete combustion from any flame-fueled (*i.e.,* not electric) device, including ranges, ovens, clothes dryers, furnaces, fireplaces, grills, space heaters, vehicles, and water heaters. Furnaces and water heaters may be sources of carbon monoxide, but if they are vented properly the carbon monoxide will escape to the outside air. Open flames, such as from ovens and ranges, are the most common source of carbon monoxide in the home.

Carbon monoxide detectors trigger an alarm based on an accumulation of carbon monoxide over time. Carbon monoxide can do harm with high levels of exposure in a short period of time, or with lower levels over a long period of time. Detectors require a continuous power supply. Models are available that offer back-up battery power.

There are currently 18 states, including Maryland, that have enacted provisions/requirements relating to carbon monoxide detection. **Exhibit 1** shows death totals for carbon monoxide poisoning in the State from 2005 to 2008. Some accidental deaths are linked to a combination of carbon monoxide poisoning and other factors (*e.g.*, such as smoke inhalation or preexisting health conditions.)

Exhibit 1

Cause of Death	2005	2006	2007	2008
Accidental	9	7	8	6
Suicide	7	6	13	5
Undetermined	-	1	3	2
Total	**16**	**14**	**24**	**13**

Source: Maryland Chief Medical Examiner

Radon is an odorless, tasteless, invisible natural radioactive gas. It is a byproduct of the natural decay of uranium that is found in soils and water. Radon can seep into a structure through cracks or holes in its foundation. Radon is the leading cause of lung cancer among nonsmokers in the United States and according to the U.S. Environmental Protection Agency, causes 20,000 deaths annually in America.

Eight states require radon notification to homebuyers and thirteen states require schools, child care facilities, or state-owned buildings to be tested for radon, according to the National Conference of State Legislatures.

According to the State Fire Marshal, carbon monoxide detectors now cost about $25-$50. Radon detectors cost about $100-$150.

Legislative Services notes that many large scale residences, such as dormitories, do not contain fossil-fuel burning equipment (or attached garages) within that residence. For instance, gas or oil burning heating systems and generators are often in separate buildings.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Allegany County, Harford County, Montgomery County, Talbot County, Maryland Department of Planning, Department of State Police, Department of Legislative Services

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