

## **New Smoke Alarm Law Explanation**

### **Office of the Maryland State Fire Marshal**

A new state law aimed at reducing home fire deaths went into effect on July 1, 2013. It requires replacement of any battery-only operated smoke alarm that is more than 10 years old with a unit powered by a 10-year sealed-in battery – ultimately affecting the more than 800,000 Maryland homes with battery-operated smoke alarms. These sealed-in, long-life battery alarms provide continuous protection for a decade, and national fire experts like the National Fire Protection Association (NFPA) and National Association of State Fire Marshals (NASFM) recommend their use.

Why is a sealed-in battery important? Nationally, two-thirds of all home fire deaths occur in homes with either no smoke alarm or no working smoke alarm, mainly due to missing or disconnected batteries. Last year in Maryland, nearly half of fire fatalities were in homes with inoperable alarms or no alarms at all. By sealing the battery inside the alarm, the unit becomes tamper resistant and removes the burden from consumers to remember to change batteries, which will save lives.

1. The new Maryland Smoke Alarm Law, Public Safety Article Sections 9-101 through 9-109 require the replacement of smoke alarms when they are ten years old; (ten years from the date of manufacture). This replacement requirement is already in the adopted State Fire Code, reference to the 2010 edition of NFPA 72, Paragraph 14.4.8. It is envisioned that adding the wording in State Law and publicizing the requirement will hopefully result in the widespread replacement of older nonfunctioning or unreliable smoke alarms. The date of manufacture, while sometimes hard to locate, should be printed on the back of the smoke alarm. If no manufacture date can be located, it is clearly time to replace the smoke alarm.
2. The smoke alarm requirements for existing older homes are based upon when the house was built. As a result, the requirements are sometimes confusing and it will be critical to determine when the home was actually built to determine the level and type of smoke alarms required. Key dates being: July 1, 1975, January 1, 1989, and January 1, 1990.
3. The new law heavily emphasizes the use of sealed smoke alarms with long life batteries and silence/hush buttons. However, it is critical to understand that these devices are appropriate only where battery operated smoke alarms presently exist or in locations where no smoke alarms are present. **It is never acceptable to remove required wired in smoke alarms and replace them with any type of battery only operated device.**

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- 4.** The intent of the new Maryland Smoke Alarm Law was to achieve as much reliable smoke alarm coverage as possible in older dwellings without ever requiring a homeowner to run new wiring.
  
- 5.** The primary intent of the new Maryland Smoke Alarm Law was to transition away from smoke alarms with nine-volt batteries. Historically, the normal course of action when frying bacon or burning toast activated the smoke alarm was to stand on a chair and remove the battery to quiet the alarm. The annoying low battery alarm chirp which nearly always occurs at 3:00 in the morning has once more resulted in removal of the smoke alarm battery. Despite the best of intentions, many of these batteries never get replaced resulting in much loss of life fires in homes having smoke alarms with dead or missing batteries. Both of these problems will be essentially solved as we transition to sealed smoke alarms. The silence button will temporarily turn off the alarm due to cooking activations and the alarm will reset after a few minutes. A low battery chirp will occur only once every ten years with the new generation sealed units, rather than once per year. This then indicates it is time to replace the entire smoke alarm.
  
- 6.** While the new sealed smoke alarms with long life batteries and hush features will cost a few more dollars at the time of purchase, money is actually saved over the ten year life of the device since there is no longer a need to purchase new nine-volt batteries every year.
  
- 7.** Under the old law, for homes constructed prior to July 1, 1975, a smoke alarm was required in each sleeping area and the smoke alarm may be battery operated. Essentially, an older two story house with a basement could get by with a single nine-volt battery operated smoke alarm in the second floor hallway, outside of the bedrooms. This device, even if working properly, most likely will not alert a family member who falls asleep playing video games in the basement recreation room or while watching TV in the living room on the first floor.
  
- 8.** For homes constructed between July 1, 1975 and June 30, 1990, an AC power operated smoke alarm was required in each sleeping area. Once more, if all of the bedrooms were located on the second floor, only one smoke alarm outside of the sleeping rooms was required. The requirement that the AC-power operated smoke alarms have battery backup became effective July 1, 1990.

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**9.** Any new home in Maryland constructed after January 1, 1989 required at least one hardwired electric smoke alarm on every level of the home, including the basement and required the units to be interconnected in order that activation of any one of the required smoke alarms resulted in the sounding all of the required smoke alarms.

**10. Smoke alarm coverage in older homes constructed prior to January 1, 1989, must be upgraded to at least one approved smoke alarm on every level of the older home when any one of the following first occur:**

- A. The existing smoke alarm is more than ten years old.**
- B. The existing smoke alarm fails to respond or otherwise malfunctions.**
- C. There is a change of tenant.**
- D. A building permit is issued for an addition or renovation.**
- E. January 1, 2018 at the absolute latest.**

**11.** To achieve the upgraded smoke alarm coverage noted previously, smoke alarms shall be AC-power operated units except that sealed battery operated smoke alarms with long life batteries and silence / hush button features may be installed in locations of the home where wired in smoke alarms did not previously exist.

The conclusion of the Maryland Smoke Alarm Technology Task Force was that both ionization and photoelectric smoke alarms are listed to Underwriters Laboratories Standard 217 and are perfectly acceptable early warning devices which have been responsible for the saving of many lives. The Office of the State Fire Marshal encourages the use of both technologies by installing at least one ionization and at least one photoelectric smoke alarm in every home. Furthermore, nothing in the new law is intended to imply in any way that smoke alarms are an adequate substitute for residential fire sprinkler protection. The combination of properly located and functioning smoke alarms and properly designed residential fire sprinkler protection provide the greatest potential for surviving any residential fire.

These simple steps can go a long way to help save lives today, tomorrow and every day in the future.