Office of State Fire Marshal

Smoke Alarm Frequently Asked Questions

Why should my home have smoke alarms?

- The cause of most fire deaths is smoke not flames
- Most fire deaths and injuries occur between midnight and 8 a.m. when people are asleep
- Seconds count! You have less than three minutes to escape a house fire
- The earlier a smoke alarm alerts you, the more likely you will get out alive

What is the difference between smoke alarms and smoke detectors?

- Smoke alarms are self-contained, single or multiple-station smoke-sensing devices
- **Smoke detectors** are smoke-sensing devices that are not self-contained and operate as part of a central control system

What is the difference between ionization and photoelectric smoke alarms?

- Ionization smoke alarms are quicker at sensing flaming, fast moving fires
- Photoelectric smoke alarms are quicker at sensing smoldering fires

What are the requirements for the location of smoke alarms?

- Outside sleeping areas
- On each level
- On the ceiling at least four inches from the nearest wall or high on a wall, 4 to 12 inches from the ceiling
- All smoke alarms are to be installed according to the manufacturer's recommendations
- Meet the applicable requirements of the State building Code at the time of construction

Are smoke alarms required to be installed in in all bedrooms?

- If required by State Building Code at the time of construction or remodel. *Note*: Some local ordinances have additional requirements. Check with your local building department and/or housing agency
- The Office of State Fire Marshal encourages installing smoke alarms in all bedrooms for increased protection



Where should smoke alarms not be installed?

• Kitchens, Bathrooms, Garages, & unheated areas where moisture, frost, cooking vapors and exhaust fumes could cause a false alarm

What about 110 volt (hard-wired) smoke alarms?

- All ionization only smoke alarms not connected to a commercial fire alarm system, whether 110 volt (hard-wired) or solely battery operated, need to have a hush feature
- Only ionization smoke alarms that are solely battery powered must be sold with a ten year, long life battery

How often do I replace my smoke alarm?

- According to the National Fire Protection Association National Fire Alarm Code 72-10.4.7 Replacement of Smoke Alarms in One and Two-family Dwellings:
 - "Unless otherwise recommended by the manufacturer's published instructions, single and multiple station smoke alarms installed in one- and two-family dwellings shall be replaced when they fail to respond to operability test, but shall not remain in service longer than 10-years from the date of manufacture." (Adopted as part of the Oregon Fire Code 2007 Edition, October 2007 (10.4.6)
- Carbon Monoxide/Smoke Alarm combinations are recommended to be replaced 5-years from date of manufacture

How do I keep my smoke alarm working?

- Test smoke alarms monthly
- Use compressed canned air or vacuum smoke alarms regularly to remove dust and cobwebs
- Never disconnect or remove smoke alarm batteries for other use
- Determine alarm type. Replace alarm or battery based on the "Alarm Type" and "How often do I replace my smoke alarm?" sections. (Please see above sections)

What do I do if my smoke alarm goes off and there is a fire?

- Get out and stay out. Never go back inside for people, pets or belongings
- Get low and go under the smoke to your way out
- Feel the knob and door before opening a door
- Call the fire department from outside your home

What do I do if my smoke alarm goes off and it is a false alarm?

- Do not disable smoke alarms when activated by cooking or other non-fire causes
- Use the smoke alarm's hush feature if available
- Open windows and doors to clear smoke from your home

Can 110 volt (hard-wired) smoke alarms be replaced with soley battery operated smoke alarms?

• No. Must be replaced with a compliant hard-wired - battery back-up alarm

What types of Smoke Alarms are available and how are they identified?

• Ionization smoke alarms:

- Contain material that ionizes the air. These ions form an electrical path between positive and negitive terminals provided by the battery. When smoke enters the alarm, it disrupts the electrical current flow and triggers the alarm
- All ionization only smoke alarms sold in Oregon are required to have a hush feature
- If solely battery powered, it is required to have a long life battery designed to last ten years (ORS 479.297)
- Ionization smoke alarms have one of the following on either the front or back of the alarm:
 - > A lower case letter "i"
 - > The word "ionization"
 - > The phrase "contains radioactive material"
 - > The symbol for radioactive material

• Photoelectric smoke alarms:

- Contain a light source and photocell, activated by light. Light from the bulb reflects off the smoke particles and directed towards the photocell. The photocell then triggers the alarm
- Photoelectric smoke alarms are exempt from the ten-year battery and hush feature requirements.
- Replace the battery at least once per year
- Photoelectric smoke alarms have one of the following on either the front or back of the alarm:
 - > A capitol letter "P"
 - > The word "photoelectric"
 - > The phrase "photoelectric technology"
- Hard-wired smoke alarms with battery back-up: These alarms are wired directly into the homes electrical system. They do not require a ten-year battery. Replace the 9 volt back-up battery at least once per year
- Hard-wired smoke alarms without battery back-up: These alarms are wired directly into the homes electrical system. If the electrical power to the home fails, the alarms will not function
- **Combination or dual sensor smoke alarms:** Ionization and photoelectric technology in one alarm to sense flaming and smoldering fires
 - These alarms have one or more of the following on either the front or back of the alarm:
 - > May use the words "photo & ion"
 - > A capitol letter "P" and lower case letter "i"
 - > The words "photoelectric" and "ionization"
 - > The phrase "photoelectric technology"
 - > The phrase "contains radioactive material"

- Ionization Smoke/Carbon Monoxide alarms: Activated by smoke or carbon monoxide.
 - Replace the battery at least once per year
 - These alarms have one or more of the following on either the front or back of the alarm:
 - > States "Smoke and Carbon Monoxide Alarm"
 - > A lower case letter "i"
 - > The word "ionization"
 - > The phrase "contains radioactive material"
- **Photoelectric Smoke/Carbon Monoxide Alarm:** Activated by smoke or carbon monoxide
 - Replace the batteries at least once a year.
 - These alarms have one or more of the following on either the front or back of the alarm:
 - > States "Smoke and Carbon Monoxide Alarm"
 - > A capitol letter "p"
 - > The word "photoelectric"
 - > The phrase "photoelectric technology"
- **Photoelectric Smoke/Carbon Monoxide with voice:** Activated by smoke or carbon monoxide. Announces the type and location of danger in your home when programed
 - Replace the batteries at least once per year
 - These alarms have one or more of the following on either the front or back of the alarm:
 - > States "Smoke and Carbon Monoxide Alarm"
 - > A capitol letter "P"
 - > The word "Photoelectric"
 - > The phrase "Photoelectric Technology"
- Explosive Gas & Carbon Monoxide Alarm: Activated by carbon monoxide, propane or methane gas
 - Replace the batteries at least once per year
 - > States "Smoke and Carbon Monoxide Alarm"
 - > A capitol letter "P"
 - > The word "Photoelectric"
 - > The phrase "Photoelectric Technology"
- Visual (strobe light) and tactile (shaker): For people who are deaf or hard of hearing
 - Replace the 9 volt or double AA batteries at least once per year

For more information on fire prevention, contact: Colleen Olson Office of State Fire Marshal phone 503-934-8228, email: colleen.olson@state.or.us