

Appendix E: Safety Devices (11.22 Update)

Smoke Alarms

Material & Installation Standards

MATERIAL SPECIFICATIONS (*NEW INSTALLATIONS & REPLACEMENTS*)

- Must be UL 217 listed
- Must possess photoelectric detection technology
- Combination smoke alarms that include ionization and photoelectric sensors in the same alarm are not permitted to be used for new installations or replacements per Vermont Fire and Building Safety Code
- Smoke alarm manufacturer shall warrant alarm for a minimum of 10 years
- Installing devices with sealed-10 year lithium batteries is required

The following must be done prior to closing out a weatherization project in any existing one-dwelling-unit building that is owner-occupied.

EXISTING SMOKE ALARMS

- Alarms shall be tested for proper operation by using the alarm's "test" button.
- Alarms shall be checked for an expiration date.
- Alarms shall be replaced if: (a) expired, meaning it has been in service longer than 10 years from the date of manufacture, (b) expiration date of the device is unknown, or (c) if it fails to function properly during test.

INSTALLATION REQUIREMENTS

- One alarm shall be installed on each floor of the building including basements and conditioned attics.
- In a basement, an alarm shall be located on the ceiling at the bottom of the basement stairway if not already present in that location.
- An alarm shall be installed within the immediate vicinity of all sleeping rooms.
- In single-family, site-built homes, the alarm shall always be mounted on the ceiling at least 4" from a wall.
- In mobile homes it is acceptable to mount the alarm onto an interior wall 4" to 12" from the ceiling.
- Installation shall be in compliance with these standards and manufacturer's instructions.
- New alarm(s) shall be tested upon completion of installation.
- **The installation date shall be clearly marked on the device.**
- Alarms shall not be installed within 36 inches of a door to a bathroom containing a shower or tub.
- Alarms shall not be installed within 36 inches of forced air heating or cooling system registers or the tip of the blade of a ceiling fan.

OCCUPANT EDUCATION

- The occupant shall be instructed how to operate, test and maintain the alarm.
- The occupant shall be provided with the smoke alarm owner's manual.



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Carbon Monoxide Alarms Material & Installation Standards

MATERIAL SPECIFICATIONS (NEW INSTALLATIONS & REPLACEMENTS)

- Must be UL 2034 listed
- Alarm manufacturer shall warrant alarm for a minimum of 10 years
- Installing devices with sealed-lithium batteries is required

The following must be done prior to closing out a weatherization project in any existing one-dwelling-unit building that is owner-occupied.

EXISTING CARBON MONOXIDE ALARMS

- Alarms shall be tested for proper operation by using the alarm's "test" button.
- Alarms shall be checked for an expiration date.
- Alarms shall be replaced if (a) expired, meaning it has been in service longer than 10 years from the date of manufacture, (b) expiration date of the device is unknown, or if it fails to function properly during test.

INSTALLATION REQUIREMENTS

- One alarm shall be installed on each floor of the building including basements.
- An alarm shall be installed in the immediate vicinity of each sleeping room.
- Installing one alarm inside of each sleeping room that contains a fuel-burning appliance is also required.
- In single-family, site-built and mobile homes, the alarm shall always be mounted on an interior wall 5' above the floor.
- If a preexisting alarm (for example: a plug-in device) is present and in good working order but it is not located in the required installation location, please leave the existing alarm in place and install a new one in the required location 5' above the floor.
- Installation shall be in compliance with these standards and manufacturer's instructions.
- New alarm(s) shall be tested upon completion of installation.
- **The installation date shall be clearly marked on the device.**
- Alarms shall not be installed within five feet of a combustion appliance, combustion appliance flue, supply or exhaust fan, kitchen or bathroom or storage area for chemicals.
- Alarms shall not be installed within five feet of an exterior door or window.

OCCUPANT EDUCATION

- The occupant shall be instructed how to operate, test and maintain the alarm.
- The occupant shall be provided with the carbon monoxide alarm owner's manual.

LOW-LEVEL CARBON MONOXIDE MONITORING DEVICES

- In addition to all of the requirements above, installing one carbon monoxide "low-level-monitor" within the home is an allowable and encouraged practice. But this is not a program requirement. None of the "Material Specification" or "Installation Requirement" policies outlined above apply to low-level CO monitoring devices. The "Occupant Education" policies listed above do apply to these devices whenever they are installed.

