

**Bear Creek Township
Building Department**
373 N. Division Road
Petoskey, Michigan 49770
Ph 231-347-3204 Fax 231-347-0736

Smoke Alarm Requirements

Smoke detection systems have been a part of the building code for many years. These devices have been shown to save lives, by providing us with an audible alarm to notify us when smoke may be present in a building. When installed and maintained in accordance with the code and the manufacturer's specifications, these devices will provide an important life saving system in our homes. Smoke detectors/alarms are required in new construction, and in projects that require permits for alterations, additions and repairs. These requirements are located in the 2009 Michigan Residential Code (MRC), Section R314.

In accordance with Section R314.3 of the 2009 MRC, smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attic areas, but not in uninhabitable attics or crawlspaces. In dwellings with split levels and without intervening doors between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than 1 full story below the upper level.

This same code section also requires that when more than 1 smoke alarm is required to be installed within an individual dwelling unit, the smoke alarms shall be interconnected so that when one alarm activates, the activation will set off the remainder of the smoke alarms in the dwelling unit too.

As stated earlier, smoke alarms are required to be installed and/or updated in projects involving alterations, repairs and additions too. This requirement kicks in whenever a building or electrical permit are required. The smoke alarms are required to be installed in the same locations noted above in alteration, addition and repair projects. The exception to this requirement is if the work requiring a permit involves only the exterior surfaces of the building, such as reroofing, residing, door and window replacement, or porch and deck additions. Work on plumbing and mechanical systems that require permits are also exempt from the smoke alarm requirements.

Section R314.4 of the 2009 MRC lists the requirements for smoke alarm power sources. Smoke alarms are required to receive their primary source of power from the building wiring when such wiring is served from a commercial source of power, and when the primary power is interrupted a battery back is required to power the system. The wiring is required to be permanent and without a disconnecting switch to interrupt the power (with exception of the over-current protection). As with many code sections, there are a couple exceptions to the power requirements. Smoke alarms are allowed to be battery operated when installed in buildings without commercial power. Interconnection and hardwiring is not required in alteration and repair projects if those projects do not involve the removal of wall and/or ceiling finishes unless there is an attic and/or crawlspace available which could provide access to install the necessary wiring and interconnection without the removal of interior finishes.

Section R314.6 of the 2009 MRC contains the code requirements detailing the equipment requirements. Smoke alarm devices are required to be listed and installed in accordance with the manufacturer's installation instructions, the provisions of the building code, and the provisions of NFPA 72. In some instances, battery operated units can be allowed. If you choose to use a battery operated unit, it is best to discuss the installation with your local inspectors, to verify the installation will meet all of the code requirements. This should be done prior to the installation.

Smoke alarms can save lives, but only when installed and maintained correctly. It is the responsibility of the owner, or a renter in a rental property, to maintain and test the smoke alarms in accordance with the smoke alarm manufacturer's instructions. Batteries should be checked annually, and changed when no longer able to provide the necessary backup power to operate the unit in the event that the primary power source is interrupted.

Protect yourself, protect your family,. Make sure that you have smoke alarms located throughout your home. The life the smoke alarm saves may be yours!