

# Fire safety in manufactured homes

## About manufactured homes

Manufactured homes (sometimes called "mobile" homes) are transportable structures that are fixed to a chassis and specifically designed to be towed to a residential site. They are not the same as modular or prefabricated homes, which are factory-built and then towed in sections to be installed at a permanent location.

In order to distinguish between modular, prefabricated and recreational trailer homes, the following definition for a manufactured home from [NFPA 501, Standard on Manufactured Housing](#), applies:

*A structure, transportable in one or more sections that in the traveling mode is 8 body-ft (2.4 m) or more in width or 40 body-ft (12.2 m) or more in length or that on site is 320 ft<sup>2</sup> (29.7m<sup>2</sup>) or more, is built on a permanent chassis, is designed to be used as a dwelling with or without a permanent foundation, whether or not connected to the utilities, and includes plumbing, heating, air-conditioning, and electrical systems contained therein. Such terms shall include any structure that meets all the requirements of this paragraph except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the regulatory agency. Calculations used to determine the number of square feet in a structure are based on the structure's exterior dimensions, include all expandable rooms, cabinets, and other projections containing interior space, but do not include bay windows.*

The federal government regulates the construction of manufactured housing. Since 1976, manufactured homes have been required to comply with U.S. Department of Housing and Urban Development (HUD) manufactured housing construction and safety standards, which cover a wide range of safety requirements, including fire safety. Post-1976 manufactured homes bear a label certifying compliance with these standards.

The HUD standard has been enhanced over the years and the HUD "Final Rule" for smoke alarms in manufactured homes is largely based upon NFPA 501. Today, new construction of manufactured housing is required to contain, among other provisions:

- factory installed hard wired or 10 year battery source, interconnected smoke alarms with battery back-up (including alarms inside or immediately adjacent to all rooms designated as sleeping areas, top of the stairs and on the basement ceiling near the stairs)

NFPA's national fire data indicate that manufactured homes built to HUD standards (post-1976 construction) have a much lower risk of death if fire occurs compared to pre-standard manufactured homes. The latest data (2007-2011) also shows that the overall fire death rate per 100,000 housing units is roughly the same for manufactured homes and for other one- or two-family homes.

Despite the federal requirements for factory-installed smoke alarms and the fact that eight out of ten manufactured homes now are and seven out of ten manufactured home fires now involve post-HUD-Standard units (based on 2007-2011 data), 51 percent of fires in manufactured homes were reported as having no smoke alarms present. This suggests a problem with detection devices being removed by occupants.

## Safety tips

To increase fire safety in manufactured homes, NFPA offers the following guidelines:

- **Choose a HUD-certified manufactured home**  
If you are in the market to purchase or rent a manufactured home, select a home built after 1976 that bears the HUD label certifying compliance with safety standards.
- **Keep smoke alarms working**  
Never remove or disable a smoke alarm. If you experience frequent nuisance alarms, consider relocating

the alarm further away from kitchen cooking fumes or bathroom steam. Selecting a photoelectric smoke alarm for the areas nearest kitchens and baths may reduce the number of nuisance alarms experienced. As an alternative, NFPA 501 permits a smoke alarm with a silencing means to be installed if it is within 20 feet of a cooking appliance. Test all smoke alarms at least once a month by pushing the "test" button. It is not necessary to use smoke or a real flame to test the smoke alarm's operability, and it is risky to do so. Replace batteries at least once a year, and when the alarm "chirps," signaling low battery power. Occasionally dust or lightly vacuum smoke alarms.

- **Make sure you have enough smoke alarms**

If your older manufactured home does not have smoke alarms in or near every sleeping room and in or near the family/living area(s), immediately install new alarms and fresh batteries to protect these rooms. For the best protection, interconnect all smoke alarms throughout the home. When one sounds, they all sound.

- **Plan your escape**

Know ahead of time how you will get out if you have a fire. [Develop an escape plan](#) which includes having an alternate exit out of every room. Make sure you can open and get out of windows and doors. All post-HUD Standard manufactured homes are required to provide windows designed for use as secondary escape routes for the bedroom. Familiarize yourself with their operation and don't block access to them. Immediately fix any windows that have been painted or nailed shut, doors that are stubborn or "stuck," and locks that are difficult to operate. Security bars or grates over windows or doors should have quick-release devices installed inside, which allow you to open them in an emergency. Hold a fire drill twice a year to rehearse how you will react if the smoke alarm sounds.

- **Electrical**

Hire a licensed electrician if you notice flickering lights, frequent blown circuits, or a "hot" smell when using electricity. Use extension cords for temporary convenience, not as a permanent solution. Avoid overloading electrical receptacles (outlets). Electrical cords should not be run under carpets or rugs, as the wires can be damaged by foot traffic, then overheat and ignite the carpet or rug over them. Ground-fault circuit interrupters reduce the risk of electrical shock and should be installed by electricians in kitchens and baths. Arc Fault Circuit Interrupters monitor electric circuits for arcing and should be installed by electricians on bedroom circuits.

- **Cooking**

Unattended cooking is the leading cause of cooking fires in U.S. homes. Supervise older children who cook and stay in the kitchen when heating anything on the stove. Keep cooking surfaces clean and place anything that can burn well away from the range. Heat oil slowly and know how to slide a lid over a pan if you experience a grease fire. Read more cooking safety tips.

- **Heating**

Keep space heaters at least three feet away from anything that can burn. When purchasing new space heaters, select appliances with automatic shut-off switches. Kerosene heaters are illegal for home use in some jurisdictions. Check with your local fire department before purchasing a kerosene heater. Turn off portable space heaters before falling asleep or when leaving the room. Refill kerosene heaters outdoors, after the heater has cooled down. Supervise children and pets when space heaters are operating. Read more heating safety tips.

- **Walls**

All post-HUD Standard manufactured homes are required to have wall linings that do not promote rapid flame spread, with special protection around primary heating and cooking equipment, such as the furnace and cooking range. Presently, gypsum wallboard has replaced plywood wall paneling and wood based ceiling panels in the fabrication of manufactured housing walls and ceilings. This action has dramatically reduced the impact of fires in manufactured homes. Do not mount anything on the walls – such as paneling, drapery, or wall hangings – that would reduce this protection, especially near major heat sources.

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# Fire Safety: Don't Ignore the Real Facts about Manufactured Homes

**COLUMBUS, OH** (May 10, 2017) – Manufactured homes built since 1976 are safer than homes traditionally built on land. Nationally, manufactured homes have 38-44% fewer fires and lower civilian fire injuries than site-built homes.

The [Ohio Manufactured Homes Association](#) (OMHA) and the national Manufactured Housing Institute are setting the record straight about manufactured home safety in response to inaccurate facts related to efforts to abolish the Ohio Manufactured Homes Commission and transfer its responsibility to the Ohio Department of Commerce.

“The manufactured housing industry produces the safest and most fire-resistant home available in the market today,” said Tim Williams, executive director of the Ohio Manufactured Homes Association. “That’s a fact backed by the 2013 National Fire Protection Association study indicating manufactured homes have stricter fire safety codes and less fires than site-built homes.”

## The Facts:

Manufactured homes built after June 1976 adhere to the federal Housing and Urban Development (HUD) Manufactured Home Construction and Safety Standards (The HUD Code). The HUD Code regulates the design, construction and installation of manufactured homes to assure their quality, durability, affordability and safety – including safety in fires. These standards apply to all manufactured homes produced after June 1976.

The HUD Code has revolutionized safety in manufactured homes and should not be confused with the older “mobile homes” and trailers which were built without a federal construction fire standard prior to 1976.

Building to the HUD Code has improved safety. A 2013 study by the National Fire Protection Association (NFPA) indicated the fire safety code for manufactured homes is more stringent than the code for all other homes built on site. NFPA indicated today’s manufactured homes have 38-44 percent fewer fires and lower civilian fire injuries than site-built homes per 100,000 people.

No local or state agency or the Manufactured Housing Commission has any authority over fire codes in manufactured homes because the fire safety code is federally pre-empted by HUD.

Fire resistance features of the HUD Code include:

- Strict standards for flame spread and smoke generation in materials, especially those materials close to heating equipment and in the kitchen
- Egress windows in all bedrooms
- Smoke detectors
- A least two exterior doors, which must be remote from each other and reachable without passage through other doors that are lockable, compared to site-built homes are required to have only one exterior door, and no reach ability requirement

The results of a 2013 National Fire Protection Association (NFPA) report comparing the impacts of fires on manufactured and traditional housing showed:

- The fire death rate in HUD Code homes, those built after 1976, was equivalent to other site-built housing, and that manufactured homes have 38-44 percent fewer fires than site-built homes.
- Manufactured homes have essentially the same fire death rate as other single-family residential homes.
- Manufactured homes have a lower rate of civilian fire injuries per 100,000 occupied housing units than other one or two-family homes and post-HUD standard manufactured homes are more likely than other homes to have fires confined to the room of origin.

Foremost Insurance Company also took an in-depth look at the fire frequencies of manufactured homes built before and after the HUD Code went into effect. Their research found that HUD Code homes burn less often and have lower fire losses than pre-HUD Code manufactured homes.