



Gas Water Heater Safety

Gas fired water heaters, igniting flammable vapors, are responsible for 800 residential fires, resulting in 5 deaths and 130 injuries each year. All new, gas, water heaters manufactured since July 1, 2003 incorporate a flame arrestor, to prevent flashback fires from flammable vapors. What is a flame arrestor, what danger is present if your gas water heater was manufactured before July 2003, and what steps can you take to eliminate any danger from your gas water heater to your home and family?

Flame arrestors were developed by the Gas Appliance Manufacturers Association, and are approved by the Consumer Product Safety Commission. A flame arrestor prevents flashback fires by trapping gas vapors already inside of the heater, and preventing flammable vapors from outside sources entering the combustion chamber. Separating the vapors from the source of ignition prevents flashback fires in the adjacent areas.

If your home has a gas water heater manufactured before July 1, 2003, proper installation details and home safety practices can minimize the risk of a flashback fire. If the Gas fired water heater is located within the primary living space, make sure that no flammable liquids are stored in the same room with the water heater. If a container of flammable liquid is spilled in close proximity to the heater, vapors from the spill may ignite through contact with the pilot, igniter, or burner. If your gas fired water heater is located in the garage of your home, the unit should have been installed with the burner at least 18" above the vehicle floor. This requirement is to prevent low-lying vapors from contacting the pilot, igniter, or burner flame. Even when these proper installation procedures are present, fuel and other flammable liquids should be stored in tightly sealed, approved, non-glass containers and as far from the gas fired water heater as possible. All fueling, and any activity that produces flammable vapors, such as cleaning paint brushes with turpentine, or transferring flammable liquids or gases from one container to another, should take place outside of the room containing the gas fired water heater. Additionally, if the water heater is located within the garage, it must be protected from damage by impact with a vehicle.

If you suspect that the gas fired water heater in your home or garage is not properly located or installed, have a home inspector or other qualified professional perform an inspection. If substandard installation is present, have the unit relocated or modified by a licensed qualified plumber to prevent a flashback fire accident.

New standards and new technologies are developed every day to make the home a safer environment. Until such time as all homes are equipped with the new technology, careful placement and handling of potential sources of flammable vapors, and attention to proper installation procedures, can provide an environment free from flashback fire hazards for you and your family.

R. Scott Devers is President of On The Level, Professional Home Inspections of Bakerton. He will answer questions on this or other related topics via email at levelinspections@juno.com