

## Winterizing a Home

The simplest solution and least risky alternative to winterizing is to leave the heating system running at a minimum setting (with the water turned off of course). Though it might seem like a waste of money or energy at first glance, a minimal heating bill will be less expensive than the cost of potential repairs if everything were to freeze up.

### Basic Steps Needed to Properly Winterize a Home

- 1. Turn Off Water.** The first step is usually easy; locate and turn off the main water shut off valve, preferably one that is outside. Call Public Works at 952-939-1382 to request the water be shut off at the curb.
- 2. Water Heater.** After the water is off, turn off and drain the water heater. There are a couple of different procedures that could be followed to accomplish this step. Temperature controls on gas water heaters should be set to the Off position, as well as closing the gas valve. Electric water heaters should be shut off at the breaker. A faucet or spigot will need to be opened to allow air to flow in as water is drained out.
- 3. Drain Supply Lines.** Water then should be drained from the entire water supply system, faucets and fixture shut off valves left open. If the house is on a well, the pressure tank should also be drained.
- 4. Blow Out the Water Supply Lines.** Though gravity may be sufficient to drain the plumbing in many homes, standing water will remain in some pipes. Though the water is not longer under pressure, this remaining water will freeze and may strain some fittings. CPVC (plastic, not PEX) would be prone to cracking. It's recommend that water be blown out of the water supply lines with an air compressor.
- 5. Other Items to Drain.** Water softeners, filters, and water treatment systems also need to be drained.
- 6. Anti-Freeze.** Once all the water supply lines are completely empty, flush the toilets until they are empty then winterize toilets and other drain traps by filling them with a special non-toxic RV type antifreeze solution (pink in color).
- 7. Other Appliances.** Keep in mind that water also runs through many appliances such as the washing machine and dishwasher, as well as the water supply line to the ice-maker in refrigerators. Each one of these will also need to be drained and/or disconnected.
- 8. Turn Off Electrical.** Turn off all electrical breakers to appliances as well as any other unnecessary breakers, and post a reminder note at the panel to make sure the electric water heater and other appliances aren't turned on before the water is turned on.
- 9. Heating systems.** You wouldn't think that a furnace would contain water, but some do. High-efficiency furnaces (also called condensing furnaces) generate a significant amount of condensation from the water vapor in the flue gases. These systems, as well as air conditioners, have a condensate drain line. Sometimes the condensate drains into a floor drain, but if there's no drain available the condensate drains into a small pump which pumps the fluid uphill into the plumbing drain. Though there is less chance of damage, these should also be looked at.

10. **Special Heating Systems.** If the home has any sort of a more elaborate heating system such as a hot water boiler, heat pump, or radiant floor heat, then we recommend VERY strongly that it be handles by a HVAC professional familiar with these systems. These heating systems sometimes circulate water instead of a freeze-resistant fluid, or may interconnect with the plumbing system and/or hot water heater. It should not be assumed that these systems could simply be turned off without danger of damage from freezing.

11. **Warning.** Last of all, post signs in conspicuous locations (“Winterized - Do Not use Plumbing”).

12. **Gas Flow Shut-Off.** Vacant properties that are not going to be reoccupied within 180 days or less shall have the gas utility company shut off the gas meter and lock it. If property will be reoccupied within 180 days a gas excess flow valve shall be installed on the gas piping immediately downstream of the gas meter outlet. Licensed Contractor and proper permit required to perform this work.

**De-Winterization is just as important.**

When returning to occupy the house, the entire process must be carefully reversed (de-winterized), such as turning off faucets and fixture shut off valves before turning the water supply or well pump (otherwise you can be in for a rude surprise).