

Protecting Plumbing and Appliances during a Winter Power Failure

During a power failure or other heating emergency, protect exposed water pipes, drains, appliances, and other items to prevent damage from freezing.

Plumbing System

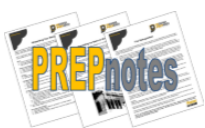
1. Shut off the water at the main valve or turn off the well pump if it is in the house.
2. Drain the pressure tank.
3. Open all faucets until they drain completely. Some valves will open only when there is water pressure. If so, remove the valve from the faucet.
4. Drain the entire system by disconnecting pipe unions or joints as close to the main valve as possible. You may use compressed air to blow water from pipes.
5. Insulate undrainable pipes around their main valves. Use blankets, housing insulation, or newspapers.
6. Drain toilet flush tanks and spray hoses.
7. Disconnect the water softening unit so water can drain from the hard and soft water pipes and from the controls. Lay the softener tank on its side to drain as much water as possible. Also drain controls and tubing on brine (salt) tanks. A brine tank itself will not be harmed by freezing.

Sewage System

1. Empty all drain traps by carefully removing drain plugs or by disconnecting traps.
2. Blow out inaccessible traps with compressed air or add propylene-glycol base antifreeze in an amount equal to the water in the trap (1 pint to 1 quart is sufficient, depending on the size of the trap).
3. Check kitchen sinks, bathroom sinks, bathtub drains, toilets, washtubs, showers, floor drains, and sump pumps.

Appliances

1. Disconnect the electric power or shut off the fuel to all water-using units.
2. Shut off the water supply and disconnect the hoses, if possible.
3. Drain all water-using appliances.
4. Check the water heater, humidifiers, ice-making unit of the refrigerator, washing machine, and dishwasher. Drain the pumps on the washing machine and the dishwasher. Do not put antifreeze in these appliances. Close valves to the furnace, water heater, and dryer.



Hot Water Heating System

If you think the heat will be off several hours or more during below freezing temperatures, you will need to keep exposed heating pipes from freezing. This can be done by circulating water through the pipes, or adding antifreeze to the system.

1. **Circulating water.** If electrical power is available, keep the circulator pump going. Moving water does not freeze readily. However, if the room temperature drops to below 40°F, you should probably begin to drain the pipes.
2. **Draining pipes.** Most hot water heating systems are not easily drained. Pipes may have to be disconnected to drain low points. Open the vents on radiators to release air so pipes can drain.
3. **Adding antifreeze.** Consult a heating contractor about adding antifreeze to your system. Use antifreeze in waste water or hot water heating systems only if it is not practical to maintain heat in the home, insulate the vulnerable pipes, or keep water trickling through the system. The common type of antifreeze used in automobile cooling systems is Ethylene Glycol. This is NOT safe to use in any part of a home water system. The other type, Propylene Glycol, is used in the waste water systems of recreational vehicles and is generally safe for waste water systems, toilets, drain lines and hot water heating systems of buildings that are left unheated during extended periods of sub-freezing temperatures. Propylene Glycol is not harmful if swallowed in small amounts but it is still not recommended for use in water supply systems. (<https://fyi.extension.wisc.edu/house/about-the-house/plumbing/>)

