

As energy costs escalate, most homeowners strive to operate homes in the most energy efficient manner possible. Water heaters are often overlooked as a source of inefficiency.

Since water heaters are usually tucked away in closets, basements, crawl spaces and attics, they are frequently forgotten until a problem occurs. Unfortunately, failing to properly maintain a water heater may not only result in wasted energy, it may also be dangerous.

Maintenance of water heaters involves regular leak checks and sediment elimination. Checking regularly for leaks can minimize or prevent water damage that could result in flooring and sub-flooring decay, mildew and water stains. It will also save on water and heating costs by preventing unnecessary waste. Check all pipe connections, valves and underneath the water heater itself. If a water heater is leaking, it will likely require professional repair, or replacement.

While leak detection is the primary maintenance concern with water heaters, sediment elimination may also be necessary. Most water heater manufacturer's recommend that tanks be drained and flushed annually to prevent sediment build-up. Sediment builds up as minerals settle out of water and into the base of the water heater tank. Sediment can be problematic as it sometimes causes heating units to become louder, less efficient and short lived, by causing the heating elements, in electric models, to burn out and the unit to corrode and leak.

If your home's water no longer gets as hot as it used to or it takes longer for the water heater to recharge, there may be a sediment build-up problem. The need to eliminate sediment is greater in homes with hard water, and is less commonly necessary on public water supplies. In homes with hard water it may be necessary to eliminate sediment more frequently than annually, and those without hard water may be able to go even longer between flushes.

To drain and flush a water heater begin by turning off gas or power to the heater, either at the main gas line or circuit breaker, depending on the water heater type. One word of caution here is that you should be sure you know how to re-light your pilot light before you turn it off. If you do not, contact the gas company *before* you turn off the pilot light.

Once the power is off, attach a hose to the drain valve at the bottom of the heater. Run the hose either outdoors, to a floor drain or into a bucket. Use caution when taking this step, as the water in the tank may be extremely hot and could scald you.

Next, close the shut off valve at the cold water inlet. Now, the tank is ready to be drained. Open the pressure relief valve at the top of the heater and the drain valve at the bottom. When the water stops, re-open the cold-water inlet slightly.

Allow cold water to run for a brief period in order to rinse the tank and ensure that all sediment has been evacuated.

Turn the cold water off once again, and close the drain and pressure relief valves and remove the hose.

To refill the tank, start by opening a hot water faucet somewhere in the house. Then open for a final time, the valve at the cold-water inlet line on the heater. Once the water in the open faucet starts flowing steadily, the tank is full and you can turn the faucet off and turn on the gas or power to the tank.

If when draining the tank you noticed quite a bit of sediment in the form of white particles flowing out you may want to flush the tank more frequently. If the water ran clear from the start, you can go longer between flushes.

Performing these simple maintenance tasks can help ensure that you get the full 7 to 12 years of use that the United States Department of Energy says to expect out of your water heater.

Additionally, a good maintenance program can lower your water heating costs, which typically account for 15-20% of the total utility bill.

With respect to water conservation, a well maintained water heater will save by providing hot water more quickly and eliminating all the water that goes down the drain as we wait to step into a warm shower.