

Your Water Heater Could Leave You Soaked



MESSAGE FROM
GENERAL MANAGER AND CEO JERRY D. WILLIAMS

RECENTLY MY WATER HEATER started leaking. If you have never experienced a leaking water heater then most likely your time is coming. Going through the experience has caused me to reflect on some issues that may help you avoid the experience.

The first lesson is that federal standards for electric and gas water heaters used for residential purposes were changed last year. It took a few months for the inventory of many stores to turn over, but the new standards are in effect and the manufacturers are abiding by them. There is nothing wrong with an appliance being more energy efficient but there can be issues with how that efficiency is achieved.

Water heaters are actually fairly simple appliances. They look big and intimidating, but there is really not much to them. I will concentrate on electric water heaters, like mine, but gas

water heaters have similar issues. Water heaters are now fatter! For years we have been recommending folks add a fiberglass blanket around the water heater tank to keep the water hot for a longer period of time. The extra insulation is now being installed at the factory, under the exterior tin jacket.

If your house was constructed with the water heater snugly fitting into the spot, then you could have problems finding a replacement. My water heater fit neatly between a return air duct and the inside air conditioning unit. When my house was built in 2003 there were many water heaters that could fit in that 19 inch space, but that has all changed. Most water heaters are

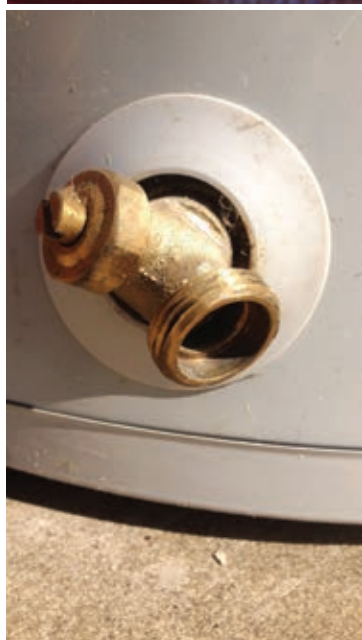
now around 21-22 inches wide.

Once I showed my wife the cold water cut off valve that is located directly above most water heaters, the flow into the closet was stopped and the carpet was rolled back. While she was mopping up water, I began to hunt for a solution. Flip the breaker, disconnect the water pipes and electric wires was a breeze. Now the mission was to find a replacement to get things back to normal. Yes, I could have called a plumber but he would shop for a replacement water heater the same place as me. A slim tank was located and could arrive in about a week. Seems slim tanks are still made that comply with the new standards by increasing their height, but no one stocks them. A week without hot water may be ok with you, but you can expect opposition from the wife.

After a lot of searching, I found a distributor that had a 30 gallon water heater that would fit. This was a stepdown from the old 50 gallon tank, but would allow me to move forward. The next problem was getting it home. It could be laid down inside the Tahoe but that may damage the internal glass lining. I drove all the way home (in the country) to get my pickup so the new water heater could be transported standing up and strapped to the cab. I wanted to do it right because there was only one water heater in the entire town that would fit and I wanted it to last.

Most water heaters are simply a steel tank covered with a thick layer of insulation and a thin jacket of tin on the outside. The factory coats the inside with glass, which keeps the water away from the steel tank. Water heater boxes are usually very clear in their warnings about not tipping the box over the edge of a pickup tailgate or any tip over that could result in fracturing the glass lining. Even a microscopic fracture of the glass lining will allow the water to start rusting a hole in the tank. A very small crack may take years, but eventually a hole will appear.

When I turned around, after paying for the new water heater, a fellow approached me and reported that I was all ready to go! He had already loaded my new water heater and was grinning because of the good deed. Sure enough, the new water heater had been laid over the back of my tailgate and slid into the truck bed. When asked, he proudly proclaimed "I have been loading them like that for 30 years". I guess he never put any thought into why he keeps selling replacement water heaters. Today's water heaters with more insulation around the steel tank have a better chance of surviving without fracturing the glass lining, but transporting upright will certainly increase your odds of going many years without a flooded house.



When giving members tips on saving energy I have seldom included the instruction of draining some water from the bottom of the water heater every month. I don't know anyone that follows this recommendation, including me. Every water heater owner's manual or warranty I have ever read, pretty much had the same advice. The Rheem owner's manual states: "A water heater's tank can act as a settling basin for solids suspended in the water. It is therefore not uncommon for hard water deposits to accumulate in the bottom of the tank. It is suggested that a few quarts of water be drained from the water heater's tank every month to clean the tank of these deposits." I was feeling pretty good knowing that I had drained a few quarts of water from my water heater; twice in 7 years! That is a far shot from the recommended once a month.

When I attempted to unscrew the lower heating element from my old water heater, it seemed to be stuck inside the tank. The bottom heating element is located about 10 inches from the bottom of the tank, and it was fully submerged in about two gallons of mineral flakes. To give you the idea, I took a picture with about a quart of the mineral flakes poured on top of my heater element lying on my desk. You can imagine how much efficiency was being lost trying to heat water with a red hot heating element that is packed in a pile of mineral flakes. The mineral flakes off of the top and bottom heating elements and accumulate in the bottom of the tank. If not cleaned out, the flakes will continue to accumulate till they cover the entire bottom element; just like mine. The minerals make the water taste good, but all the while they are accumulating in the bottom of every water heater.

I have concluded that it is probably a good idea to consider replacing your water heater if it is over 12 years old. Most likely the warranty was only good for 6-7 years. The average lifespan of a water heater in this area is 8-12 years. Replacing the water heater before it starts to leak will help you avoid a flooded house (especially if it happens when no one is home) and possibly save on mildew smelling carpet. This plan would allow you to measure your water heater space and order a water heater that will fit. Besides getting a better insulated water heater; think of how much electricity you will save by using a heating element surrounded by water instead of mineral flakes.

Now that you know what that drain spigot is for, you can attach a garden hose and drain a few gallons each month. If your water heater has been in place for several years, you could remove the lower heating element and use a wet vacuum to suck out mineral flakes. A 30 inch section of old garden hose makes an excellent snout on the end of the vacuum hose. Expect the garden hose to get plugged up with flakes every minute or so, but a few hours labor will remove the flakes or try saving up and order a new water heater to avoid soaking the carpet and your wallet.



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Your Local Pages

This section of *Texas Co-op Power* is produced by LEC each month to provide you with information about current events, safety, special programs and other activities of the cooperative. If you have any comments or suggestions, please contact the local office.



INDEPENDENCE DAY

MONDAY, JULY 4

Lamar Electric will be closed
in observance of the holiday.

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Right-of-Way Update



Sparklers and fireworks should never be lit around leaves or other flammable materials.

RIGHT-OF-WAY CONTRACTORS WILL BE WORKING in our service area during the next few months. We are working hard to make sure the lights stay on, and our right-of-way program helps make that happen. By clearing trees, Lamar Electric helps prevent power outages caused by limbs or trees falling on the lines.

You might see contractors working to clear the right-of-way on your property. They will be wearing hard hats and neon vests, and their vehicles and equipment will be marked. Kenny's Dozer Service vehicles will bear the name "Arbor Management Services." U.S. Applicators will feature their logo on their vehicles. U.S. Applicator crews might be traveling on foot and wearing a foliar spray backpack, as pictured. As always, if you spot unusual activity, call the sheriff.

Listed below are the areas where our contractors will be clearing the right-of-way or spraying to keep additional growth from reaching our lines. "Additional ROW bids have been awarded, and announcements with details will be released as the crews begin the work," said James Smith, Lamar Electric's right-of-way superintendent.

For a detailed map of these areas, visit lamarelectric.coop and click the Services tab, then select ROW Program.

Type of Work and Contractor	Service Area
Right-of-way Clearing <i>Kenny's Dozer Service</i>	Unity to Belk—FM 197 West of Belk, CR 36500, 35400, 35610, 35400, 35420
Right-of-way Clearing <i>Kenny's Dozer Service</i>	Hopewell—CR 32200, 32240, 32260, 32230, 31100, 33020, 33010
Right-of-way Clearing <i>Kenny's Dozer Service</i>	Unity to Direct—FM 79, FM 197 west of Direct, CR 36220, 37350, 36260, 37100
Right-of-way Clearing <i>Kenny's Dozer Service</i>	FM 2352 from FM 79 to Georgia, CR 37000, 36330, 37100, 36220, 36200
Foliar Spray <i>U.S. Applicators</i>	County roads between View Point and Biardstown
Foliar Spray <i>U.S. Applicators</i>	Shady Grove area—CR 13400 and CR 14400
Foliar Spray <i>U.S. Applicators</i>	Between FM 1499 and Forrest Chapel on FM 197
Foliar Spray <i>U.S. Applicators</i>	Between Roxton and Ambia—FM 2122, CR 24200 & CR 23260
Foliar Spray <i>U.S. Applicators</i>	Slate Shoals area—FM 906 E to 271, CR 45500, 45350
Foliar Spray <i>U.S. Applicators</i>	Toco area—Hwy. 82 between FM 38 and CR 22900, FM 1510 from CR 33010 to Hwy. 82 and county roads in between
Foliar Spray <i>U.S. Applicators</i>	Enloe, Crossroads and Rattan—TX Hwy. 24/19 split on TX Hwy. 24 to FM 128, FM 128 to FM 2949, CR 3060, FM 1533 south of 128, FM 1530 to FM 64

Keep Fireworks Away From Power Lines

CAN'T WAIT FOR THE professional fireworks display—the one the local firefighters supervise so nobody gets hurt? You're taking a huge risk.

Even legal fireworks can be dangerous, the U.S. Fire Administration warns. In fact, Fourth of July revelers report about 9,300 fireworks-related injuries each year.

If you must put on your own fireworks show, keep it away from power lines. Light fireworks in open areas at least 300 feet from power lines.

Here are additional safety tips:

- ▶ Children should be spectators, not participants, in the show. Never give small children fireworks or sparklers.
- ▶ Read and carefully follow directions and warning labels. Most injuries result from improper use.
- ▶ Keep spectators at least 20 feet away and upwind from where the fireworks will be set off.
- ▶ Light fireworks only on a smooth, flat surface, away from all flammable materials, including dry leaves.
- ▶ Never try to relight fireworks that don't function.
- ▶ If any of your fireworks get tangled in an overhead wire or create a spark on a line, call 911 and your electric cooperative immediately. Do not try to solve the problem yourself.
- ▶ Keep a bucket of water or water hose nearby in case of fire.

Lamar Electric Sends Local Student to Washington, DC

CAMERON EDWARDS, a senior at North Lamar High School, submitted this winning essay to Lamar Electric Cooperative and won an all-expenses-paid trip to Washington, D.C., in June on the Government-in-Action Youth Tour.



What would the world be like without electricity?

The human race, especially Americans, are incredibly dependent on the use of electricity. “An estimated 79 percent of the people in the Third World—the 50 poorest nations—have no access to electricity, despite decades of international development work. The total number of individuals without electric power is put at about 1.5 billion, or a quarter of the world’s population, concentrated mostly in Africa and southern Asia.” (Nathaniel Gronewold, “One Quarter of World’s Population Lacks Electricity”)

I am lucky to have experienced some of these third-world countries’ cultures, such as the Malawian culture and the Haitian culture. Being allowed to see these cultures has really opened up my eyes to how lucky we are to have electricity and how reliable our electricity is. In these other countries, nothing is promised, especially electricity, and throughout this essay my goal is to talk about how they live without it every day—and yet how it would be near impossible for us as Americans to do what these 1.5 billion people without electricity do every day.

Although some countries wouldn’t be fazed due to the loss of electricity, America would be crushed. Just think: If there was no electricity, there would be no Fox News or CNN TV to turn to find out who just won the Iowa Caucus. We would most likely still be using a printing press and the Pony Express to distribute our news. Meaning that there could be up to a month delay on getting information out. ... Imagine trying to run a presidential campaign.

No internet, no television, and no email (of course, that would probably help Hillary Clinton out). It would be near impossible to show the whole country what you stand for and hope to change in our country. Of course a presidential race would be difficult to run without electricity, but that would not have near the effects as losing refrigeration. Millions of people would die due to starving to death because they have no way of keeping their food edible. Most food would end up rotting within a few days, and the majority of people wouldn’t have any kind of backup plan to get food. Supermarkets would end

up as battlegrounds, with people trying to steal food to feed their families. The food that would be stolen would have to be cooked over open flame, which others would smell and come try to steal. Earth would become clan against clan, primitive and uneducated. Just think: With all the fighting and violence that would be going on, no one would feel safe sending their children to a school where there could be too many unknowns and too many strangers, so education would fall to the parents. ... They would teach their kids all that they could, and hope for the best. If this trend became habit and all that was known then there would be an extremely low education level. America would not look anything like it does now; things would change drastically, most likely change for the worse.

Like I stated earlier, I have gotten to see and live electricity-free. ... It is not fun or easy. In Africa, I camped out in the bush. ... We were probably about 20 or 30 miles from the closest lightbulb. If you look at Africa at night from space it will appear to be dark, giving it the name of the Dark Continent. “Africa accounts for over a sixth of the world’s population, but generates only 4% of global electricity. Three-quarters of that is used by South Africa, Egypt and the other countries along the north African littoral.” (salaamtheeconomist/thedarkcontinent) While I was there for the 3 days we saw a total of 2 cars, both of which were ours. Everything was cooked over open fire, firewood was chopped with machetes, we trimmed the grass up with machetes as well. Sleeping in tents with no running water, meaning no shower, as well.

The African people that were living in these conditions were very primitive. Most had teeth that were rotten, and their medical needs were just about anything you could imagine. People with malaria die by the millions which can be cured with a simple medication. People can die because of a simple cut getting infected. I am not saying that all of this would happen right after the loss of electricity, but we would have to find new ways of making these vaccines. There is no doubt in my mind that they are being made with the use of electricity. So if we lost our electricity we would have to find a new way to produce these medicines. During that time people would die of curable diseases, and sadly there would be a large amount of people to die.

Overall, the loss of electricity would be devastating to planet Earth, not overcome-able but devastating. Hopefully we will never see this happen in our lifetime—but nothing is ever promised.

Works Cited

Gronewold, Nathaniel. “One Quarter of the World’s Population Lacks Electricity,” *Scientific American*. N.p., n.d. Web. 05 Feb. 2016
Salaam, Dar es. “The Dark Continent.” Weblog post. *The Economist Newspaper*, 18 Aug. 2007. Web. 11 Feb. 2016