Wireless propane tank monitors

Propane gas companies are installing wireless monitors on their tanks in people's yards. Here is the lowdown and what you can do about it.

Keywords: *propane, tank, wireless, cellular, monitor, residential, electrical sensitivity*

Why these monitors?

The propane companies are installing monitors on the tanks in people's yards to make their service more efficient.

The monitor tells the company how full the tank is, so they know when to come and fill it. Without these monitors the company has to send out their tank trucks more often to be sure their cutomers do not run out of propane. These monitors save them a lot of truck miles, especially in rural areas.

How they transmit

The monitor we saw (pictured) uses the cellular phone system. It works similarly to a smart phone by connecting to a cell tower and then transmit data over the internet.

Such a session will take several seconds, though most of the time it will be waiting for a response, just as when firing up a cell phone that was turned off completely. The actual transmissions will be just a fraction of a second.

The device is running on a battery. When the battery gets low, a technician has to drive out to insert a new battery. So, the company wants the battery to last as long as possible, i.e. they want the monitor to transmit as rarely as possible.

That means the monitor will be off almost all the time. It will probably not keep an active connection to the tower throughout the day and night (we haven't verified this yet).

Our informant said the monitor can be programmed to transmit every six, twelve or twenty-four hours.

The nameplate of the monitor we saw.

For residential use, it is plenty enough to know the tank level once a day.

This makes them pretty benign, if sitting out in the yard where you are not next to them.

How it measures the tank level

The monitor we saw did not use any wireless methods to measure the tank level. Inside the tank is a floating device which moves a magnet. The position of the magnet is picked up by a little device on top of the tank which sends an analog signal through a wire to the monitor.

Such gauges are already in use on most residential propane tanks. It just shows the tank level on a little analog dial instead.

What you can do

There are several options for handling the situation. They may work both for your own tank and for one next door.

The simplest is to ask the company not to install the monitor. They may or may not agree to that, as that's less convenient for them, though it only means continuing what they've done for years, for this one customer. In the case we are familiar with, the propane company agreed not to install the monitor.

Another option is that you can cancel automatic fill-up with the company. Instead, monitor the tank level yourself and call the company when needing a fill-up. As long as you keep calling the same company, they may allow you to keep using their tank. If not, they may sell you the tank.

If you have to have the monitor, there are other ways to cope.

The monitors are usually mounted on top of the tank with a magnet. It is easy to turn it so the antenna does not point towards the house (best done by someone who does not have severe electrical sensitivity).

If the monitor has a big flat side, (like the one in the picture), that is the antenna. It radiates out the front and back of the flat side. Turn it so the flat side is ninety degrees away from pointing at the house.

If there is a rod-like antenna sticking up, then it will not help to turn the monitor, as that type of antenna transmits in all directions.

It may be possible to place the monitor on the side of the tank, so the steel tank is between the monitor and the house. This will effectively shield the radiation.

You could shield either the house wall facing the tank, or build some sort of shield next to the monitor. Using aluminum, steel or copper is best. Even thin aluminum foil from the grocery store works well.

If you wrap the whole monitor in foil, it may not be able to transmit at all, so don't do that.

If the monitor is on a neighbor's tank, remember you have no rights at all. You can only rely on the neighbor's kindness. Making demands and citing any disability law will likely upset and backfire, an incensed neighbor may go out of their way to make things worse. It is much wiser to be gentle and make sure there is zero inconvenience to the neighbor.

You could consider turning the antenna yourself, one dark night, if the neighbor is not the friendly sort. But be careful.

Sources

A friendly person working for a propane company showed one of these monitors to us.

It was not activated or installed, so it was not possible to test the radiation. The only test we could do was checking the monitor was truly inert when not activated.

More information

More articles about coping with electrical sensitivities on www.eiwellspring.org.

2024