

WARNING: Hydrogen gas can be produced in a hot water system served by tank heater that has not been used for a period of time (generally two weeks or more).

What to do:

When returning from absence, purge water line at highest point in house and avoid turning on light switch.

If hydrogen gas is present, it is odorless. Faucet will have sound of escaping air. Open window. Do not turn on vent fan or any electric device.

Cautions:

Hydrogen gas is extremely flammable.

To reduce the risk of injury, open the hot water faucet at the highest location in the house for several minutes before using any electrical appliance connected to the hot water system.

If hydrogen is present, there may be an unusual sound similar to air escaping through the pipe as the water begins to flow.

Do not turn on electric appliance or light switch

Do not smoke

Do not allow an open flame near the faucet at the time it is open.

Cause:

The outgassing of hydrogen is caused by harmless bacteria reacting with anode rod. Usually on homes that have water wells.

Homes with water softener tend to be affected more.

Water softeners cause anode rod to be more reactive, and cause early depletion of anode.

The anode is made from reactive metals (magnesium and aluminum)

Anode protects tank from rusting: <http://waterheatertimer.org/Replace-anode-rod.html>

In most cases, the harmless bacteria reaction causes sulfur compounds and rotten egg smell.

This is resolved by replacing anode rod, cleaning tank with hydrogen peroxide, or installing powered anode rod.

In some cases, the same type of reaction can produce hydrogen.

Solutions for outgassing:

Power anode will solve this problem.... Because the power anode uses electricity and does not use reactive metals such as aluminum or magnesium.

Switch to magnesium anode rod if you have aluminum/ or vice versa. [Anode hyperlink](#)

Periodic cleaning tank with hydrogen peroxide can help solve problem.... Information on same link.

Adjust water softener to lowest setting can help.

Remove anode rod will solve problem. Remember if the water heater does not have anode rod, then tank will rust.

Caution

Light switch can ignite the hydrogen outgassing:

