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CAN YOUR DISHWASHER EXPLODE?

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YES, it can! And, the results can be seen in the photo above.

It was not the dishwasher however; it was hydrogen sulfide gas created in the hot water heater of a vacant house that caused it. Hydrogen sulfide gas is flammable and in confined spaces can be explosive. If a dishwasher explosion occurs it can cause damage and possibly personal injury.

PROBLEM

The problem is two-fold. The first is the formation of gas in the hot water heater. This gas forms because anaerobic bacteria in the water react with the metal anode in the hot water heater. This anode is made from magnesium and is there to prevent corrosion inside the water heater. If the hot water is not used for some time, say more than about two weeks, magnesium in contact with the bacteria causes the gas to form. Since the water is not moving, the gas has no where to go so it remains in solution in the hot water heater. When a valve is opened the hot water flows and the hydrogen sulfide gas comes out of solution and flows with it.

The second problem is the introduction of a spark into the gaseous atmosphere. The spark can come from an exposed switch, motor or timer in the dishwasher. As the dishwasher fills, the water level rises in the bottom. A water level switch inside the dishwasher will activate to shut off the flow of water when it reaches the proper level. If this switch or any other open switch or motor sparks inside the dishwasher, the easily ignited hydrogen sulfide can combust.

SOLUTION

If your home is going to be vacant for more than two weeks, the best solution to prevent the dangerous combustion of hydrogen sulfide is to deplete the gas from the hot water heater. This can be accomplished by fully opening the hot water valves of all faucets for at least five minutes. Do not have any source of ignition such as a cigarette, candle, stove, oven or other source near the running water while you are doing this. It is also recommended that you completely drain the hot water heater at least twice.

The reason for this is to release hydrogen sulfide gas which may be in the water lines. If you run the dishwasher and this gas is present, the gas in the dishwasher could explode.

If you smell rotten eggs while the faucets are open that is hydrogen sulfide gas.

This is especially important in foreclosed properties where the residence may have been vacant for months.