American Standard
WATER HEATERS

TECHNICAL BULLETIN

Line : : **Electric or gas-powered Water Heaters**

Technical Notice No. 5

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SMELLY WATER

CAUSE

The most common cause of “smelly water” is a non-toxic sulfate reducing bacteria, This bacteria often enters the water system through an open or a break in ground piping. The bacteria creates the energy it needs to survive by converting sulfate(SO4) to hydrogen sulfide(H2S) gas you smell in the water.

Hydrogen sulfide gas is distinctive because of its rotten egg-like stench. Its presence can severely affect the taste as well as the odor of the water. Occasionally this bacteria can be accompanied by black deposits, the result of pipe and fitting corrosion. In extremely high concentrations, hydrogen sulfide gas can be toxic though the gas is detectable long before harmful levels are reached.

The requirements for the bacteria to thrive are: a) an elevated level of sulfur in the water, b) activated hydrogen from cathodic reactions within the tank, c) water with little or no dissolved oxygen, d) and temperatures below 138°F.

Items that can increase the potential for this bacteria are: a) water softeners, b) well water, c) and long periods of no water movement.

Other factors that may contribute to smelly water:

- · Chlorides of Magnesium and Calcium leave a bitter taste.
- · Chloride of Sodium produces a salty taste.
- · Sulfates (50 ppm) gives a medicinal taste.
- · Carbon Dioxide in a low pH water gives fizzy water.
- · Iron and tannic waters also give a bad taste and odor.

FIX

The simplest treatment available is the shock-chlorination of the system. This is a surface treatment, and often requires repeated trials in heavily infected systems. The chlorination of a system requires that you follow each step explicitly to avoid an un-treated portion of the piping system from reinfecting another part.

Elaborated By: _____ **Authorized By:** _____