

TECHNICAL BULLETIN

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

Technical Notice No. 4

Date: 20/03/2018

DISCOLORED WATER

SYMPTOMS

Rusty, Brown, Black, or Yellow water appearing in the hot water



CAUSE

Complaints of discolored water are commonly blamed on water heaters and storage tanks, but in fact, it is a rare occurrence for today's high quality glass lined tanks to have a lining failure significant enough to allow water to contact enough bare metal to discolor the contents of even a small tank.

The most common cause of "rusty" water is a non-toxic iron reducing bacteria, scientifically termed Crenothrix, Leptothrix, and Gallionella. Iron bacteria is commonly found in soil, water wells, water treatment plants and water distributions piping systems where soluble iron exceeds 0.2 ppm.

Soluble iron in the water provides food for the bacteria. Rusty discolored water is the end result of the bacteria feeding process. Water heaters and storage tanks usually require new anode rod as presence of iron bacteria contributes to premature anode failure.

Items that can increase the potential for this bacteria:

- Water Softener
- Well Water
- Long periods of no water movement

FIX

The simplest treatment available is 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 re-infecting another part.

Elaborated By: _____

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