

Hot Water Heating Equipment

Chlorination Protocol

Sulfur Odor Causation: The most common cause of sulfur odor is sulfate reducing bacteria or “iron bacteria.” These species reduce sulfate (SO_4) to odorous hydrogen sulfide (H_2S), the “rotten egg gas.” Contributing variables are high dissolved sulfur, low oxygen, temperatures above 135° F and cathodic chemical reactions with sacrificial anode rods or planks within the tank.

1. Turn off the power supply to the tank.
2. Turn off the cold water supply valve to the tank.
3. Open a hot water tap to relieve the vacuum.
4. Drain all the water from the tank. Use a garden hose.
5. Remove the anode rod. Close the drain valve.
6. Through the anode rod opening add one gallon of household chlorine bleach for every 25 gallons of tank capacity.
7. Install correct anode rod. Magnesium rods should be replaced with aluminum/zinc rods.
8. Open cold water supply valve and refill the tank. Open every hot water tap until the smell of chlorine is detected. Start dish and clothes washers until chlorine odor is detected. It is important that all hot water lines receive chlorine solution.
9. Allow 2 to 4 hours contact time.
10. Drain the tank as per steps 2, 3 and 4 above.
11. Close the drain valve. Refill the tank. Allow 30 minutes contact time. Repeat steps #2, #3, and #4. Continue to flush the tank if the water is discolored or contains a strong chlorine odor.
12. Close the drain valve. Refill the tank. Open every hot water point of use and start appliances to flush the chlorine solution.
13. Return hot water heating system to service by following the manufacturer’s start-up procedure.