GAS + WATER DEPARTMENT

THE CITY OF CLARKSVILLE
TENNESSEE'S TOP SPOT

Dear Valued Customer:

Clarksville Gas and Water Department contractors will be in your area very soon replacing existing water mains to accommodate the road widening project on US41A/Madison St. As part of this project, Clarksville Gas and Water contractors will replace and reconnect your service line from the new water main to your new water meter and meter setter. The new replacement setter includes a check valve (backflow preventer).

When a backflow prevention device is placed on a water service line, the water that has been delivered through the customer's meter is prevented from returning through the meter to the water main, thereby preventing potential contamination of the water supply by cross connections. This creates a closed loop system within the customer's water system. This condition may result in a condition to the customer's internal plumbing that is called "Thermal Expansion".

What is Thermal Expansion?

Thermal expansion is an increase in water pressure due to heated water having nowhere to go in a closed system. When hot water is used it is replaced in the water heater with cold water. As the cold water is heated in the water heater it expands.

The closed system leaves little or no space for expansion. The result is a potential increase in water pressure that may damage water heaters, plumbing systems and fixtures.

What can be done about thermal expansion?

There are signs to look for to identify potential problems before more serious ones occur. Please learn the signs of thermal expansion from the list below.

Some signs of thermal expansion

- The relief valve on the water heater drips during the recovery cycle.
- Hot water pipes make a creaking sound.
- There is a sudden surge of water when a faucet is first turned on, then the pressure drops.
- Premature failure of water heaters, plumbing and fixtures.
- Hot water in the cold water lines.

It is important to know that the water heater relief valve should not be used as a means of controlling thermal expansion. Instead, contact a plumbing professional if you suspect a problem. The plumber can schedule an inspection and install proper thermal expansion control methods.

Current plumbing codes require the installation of thermal expansion relief devices in "closed systems". The two most common methods are to install either an expansion tank, or a thermal device installed on the cold water line to the tank. We suggest you discuss the best solution for your needs with a licensed plumber.

For more information on thermal expansion please visit the Clarksville Gas and Water website at http://www.cityofclarksville.com/index.aspx?page=547.

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