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to greater possibility of natural gas leaks. This problem is so prevalent that natural gas contributes to one of every four fires after an earthquake.

After a large earthquake, the occurrence of multiple fires will quickly deplete fire department resources, thereby delaying their response time to any given emergency. Installation of approved gas shut-off valves would significantly reduce the risk and spread of fires caused by damaged gas piping in the event of an earthquake.

Questions regarding gas shut-off valves or how to obtain a permit to install one, can be directed to the Danville Building Division at (925) 314-3330.



www.danville.ca.gov/building



Automatic Natural Gas Shut-Off Valve Requirements



TOWN OF DANVILLE

510 La Gonda Way
Danville, CA 94526

Building Mainline:
(925) 314-3330

Inspector Line: (925) 314-3350

GAS SHUT-OFF VALVE REQUIREMENTS

Effective July 1, 2007, all building permits exceeding \$10,000.00 in valuation, shall require the installation of approved gas shut-off valves prior to the final inspection approval.

In May 2007, the Town Council adopted Ordinance 2007-02 requiring the installation of approved gas shut-off valves. The ordinance requires installation of either a Seismic Gas Shut-Off or an Excess Flow Valve. Either device is installed on the customer side of the utility gas meter. Installation should be done by a licensed plumbing contractor.

TWO TYPES OF VALVES AT METER

Seismic Valve (Motion Sensitive)

A seismic valve is actuated by ground motion caused by earthquakes. When an earthquake reaches approximately 5.2 on the Richter Scale, the seismic valve will automatically shut off the gas supply to the building. These types of valves require a manual reset by a qualified professional once an analysis is performed on the gas piping and venting systems.

Excess Flow Valve (Non-Motion Sensitive)

An excess flow valve is activated when it detects a higher flow rating than the allotted maximum to the building. For example, if there is a pipe break or rupture in the line and gas surges through the building, the excess flow valve will reduce the flow to a non-hazardous level. The excess flow valve automatically resets when the piping is properly repaired.

How much will it cost?

The cost will depend on the configuration of the gas piping at the meter, but will typically range from \$100-\$400.

Which valve should I buy?

There are a number of approved valves by the California Division of the State Architect. Contact (916) 327-0535 for additional information or it can be found at: www.dgs.ca.gov/dsa/Home.aspx

Where can I purchase an approved valve?

Either type valve can be purchased from plumbing supply retailers or licensed plumbing contractors.

GAS SHUT-OFF COMPARISON CHART

| VALVES | MANUAL | SEISMIC | EXCESS |
|-----------|--|--|--|
| OPERATION | USE WRENCH | SENSES QUAKE | SENSES GAS LEAKS |
| BENEFITS | CAN SHUT OFF GAS IN CASE OF EARTHQUAKE OR GAS LEAK | AUTOMATICALLY SHUTS OFF GAS IN CASE OF EARTHQUAKE | AUTOMATICALLY SHUTS OFF GAS IN CASE OF GAS LEAK |
| DRAWBACKS | SOMEONE NEEDS TO BE PRESENT | WILL ACTIVATE AT 5.2 RICHTER SCALE EVEN IF NO LEAK | WILL ONLY SHUT OFF GAS IF LEAK IS ABOVE EXCESS LEVEL |

While looking towards new data and developing ideas of earthquake occurrence, the United States Geological Survey (USGS) concludes that there is a 62% chance probability of at least one magnitude 6.7 or greater earthquake hitting somewhere in the San Francisco Bay Area before 2032.

In an earthquake, the shaking of a building can cause damage to gas piping and appliances. This damage can result in a release of natural gas that can lead to fires or explosions. Structural weaknesses, the absence of appliance anchors, and lack of flexible pipe connectors can all contribute