

# Use Flexible Connection on Gas and Water Lines



FEMA

## PROTECTING YOUR PROPERTY FROM EARTHQUAKES

Because most gas and water lines are rigid, they can be torn from their connection points during an earthquake. The results could include not only serious damage to your property but also injury to you and others. A broken gas line is especially serious because of the potential for a fire or even an explosion.

One way to prevent broken gas and water lines is to have flexible connection pipes installed between appliances and their supply lines. The figure shows a flexible connection installed on a gas furnace. The same method can be used for other appliances, such as a hot water heater, clothes dryer, or stove. A licensed contractor can usually do this for you easily.

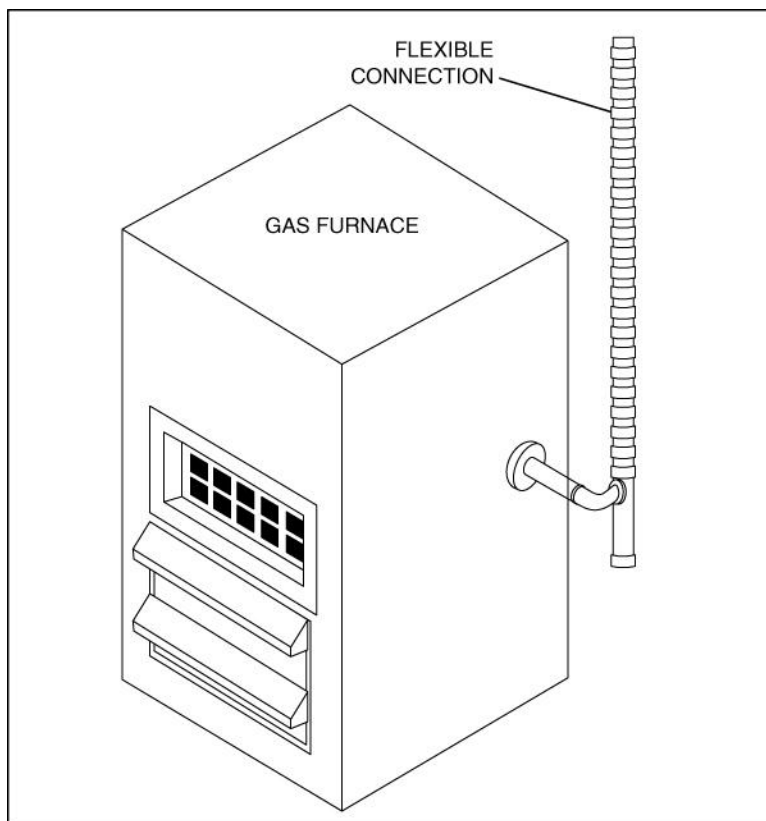
### BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent tearing of gas and water lines from their connections
- Helps to prevent serious damage to a structure
- Helps to prevent fires or explosions
- Helps to prevent injuries to occupants

### TIPS

Keep these points in mind when you have flexible connections installed:

- ✓ Changes to the gas lines and plumbing in your property must be done by a licensed contractor, who will ensure that the work is done correctly and according to all applicable codes. This is important for your safety.
- ✓ A flexible connection will help protect against a small amount of movement but is not designed to function when the appliance it is connected to moves extensively or falls. So you should also consider anchoring the appliance to the floor or wall.



## **ESTIMATED COST**

Having a flexible connection installed on a furnace or another large appliance will cost approximately \$75.

## **OTHER SOURCES OF INFORMATION**

FEMA 74, *Reducing the Risks of Nonstructural Earthquake Damage: A Practical Guide*, Third Edition, September 1994, <http://www.fema.gov/library/viewRecord.do?id=1574>.

To obtain copies of FEMA documents, call the FEMA Publications Warehouse at 1-800-480-2520 or visit FEMA's Library online at <http://www.fema.gov/library>.