U.S. Fire Administration / National Fire Academy

Coffee Break Training

Topic: Saying it Correctly

Learning objective: *The student shall be able to explain the difference among the terms "fusible," "frangible," "friable," and "fissile".*

Today's Coffee Break Training is a vocabulary lesson.

Every industry and profession has its own words and phrases that may be uniquely understood by others in that field. At times, though, we are required to communicate clearly with persons who may not understand our jargon. We should make every effort to choose our words wisely so our message is conveyed.

In the fire protection field, there are several "F words" that may cause confusion among users as well as those with whom we communicate. When giving instructions or issuing correction notices, it is essential that you use the correct word to achieve the outcome you desire.

• Fusible—An object that is "fusible" is capable of being liquefied by heat. We all are familiar with fusible links used in automatic sprinklers. The link components are held together by a eutectic alloy that fuses when it reaches its rated temperature, allowing the links to separate and the sprinkler to operate.

• Frangible—An item that is "frangible" is one that is easily broken. The photograph shows a frangible shackle padlock on a chain securing a sprinkler control valve. A quick hit with a heavy tool will break the shackle so the valve can be operated in an emergency.

The shackle of this breakaway padlock is an example of a *frangible* element.

• Friable—An object that is "friable" is something that is easily crumbled or pulverized. Many sprinkler system and standpipe fire department connections have protective covers that are made from a clayey substance that will pulverize when hit with a spanner wrench to provide quick access to the threaded connections.

• Fissile—Objects that are "fissile" are capable of being split along grain or natural planes. Wood panels, timbers, and other construction materials may be fissile.

Now that you've enhanced your vocabulary, see if you can use at least one of these words today.