The most often heard contractor phrase:

No one else makes me do that, so why do I have to ...

A special thanks to Al Clark with the City of South Pasadena for suggesting this newsletter's topic: Sediment Traps!

Violation : Sediment trap is missing or configured incorrectly
Code Sections : 2010 FBC-R SECTION G2419 (408) DRIPS AND SLOPED PIPING
2010 FBC-FG SECTION 408 (IFGC) DRIPS AND SLOPED PIPING
Comments : Contractor shall install a proper sediment trap at the gas pool heater (or wherever the sediment trap is missing or improperly configured)

Location of sediment trap:

Sediment trap is required to be installed downstream of the appliance shut off valve and as close to the appliance inlet as possible.

Sediment traps are required at all gas appliances:

Exceptions:

- illuminating appliances
- ranges
- clothes dryers
- outdoor grills

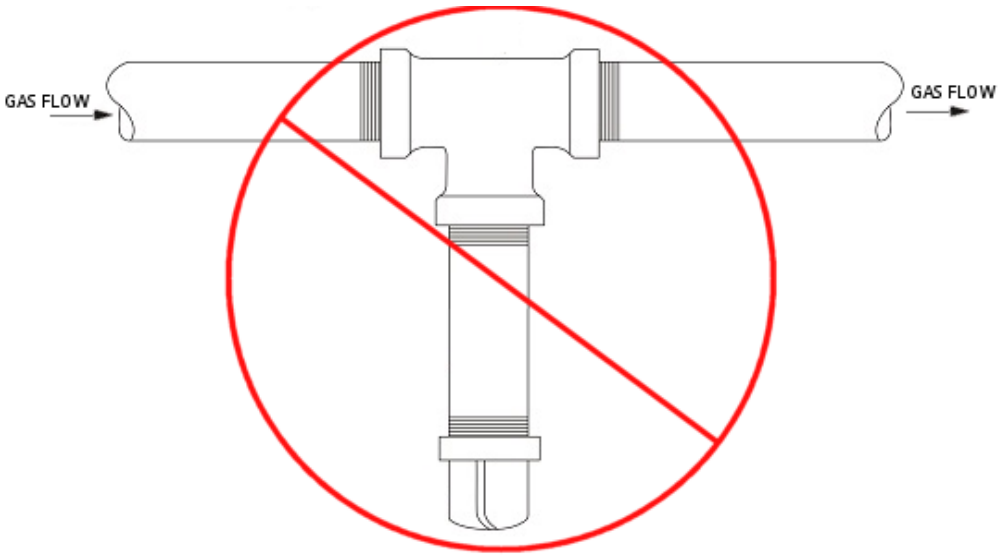
One way to remember the above is that if the flame can be seen (illuminating appliances, i.e., gas lights) or if the appliance is attended by the person operating the appliance (ranges, clothes dryers, outdoor grills), the person operating the appliance should be able to tell if the gas has stopped working – then a sediment trap is not required.

- All other appliances require a sediment trap – basically any appliance which operates automatically.

The above may be an easy way to help remember which appliances require a sediment trap and which do not.

Gas pool heaters require sediment traps; however, I frequently find that these do not have sediments trap installed.

When sediment traps are installed, improper configuration of the trap is common. The most frequent improperly configured sediment trap is where the gas supply connects to a tee fitting installed with the tee tap facing down, the gas supply is connected to one end of the horizontal tee, the appliance is connected to the other end of the horizontal tee, and a short nipple is installed into the down facing tee tap, the nipple is then capped. The gas, along with any sediment, flows through the tee, across the down-facing tap, and into the appliance … a sediment trap of this configuration (shown below) does little, if any, good.



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There are two ways to properly configure sediment traps after installing the tee with the main flow being vertical with the tap outlet being horizontal:

- The gas supply is connected to the tee's top opening, the gas appliance is connected to the tee's horizontal tap outlet, a nipple is installed into the tee's bottom opening and is capped.
- The gas supply is connected to the tee's horizontal tap outlet, the gas appliance is connected to the tee's top opening, a nipple is installed into the tee's bottom opening and is capped.

The drawing below is from the International Residential Code and offered as a visual aide to show the above sediment trap descriptions:

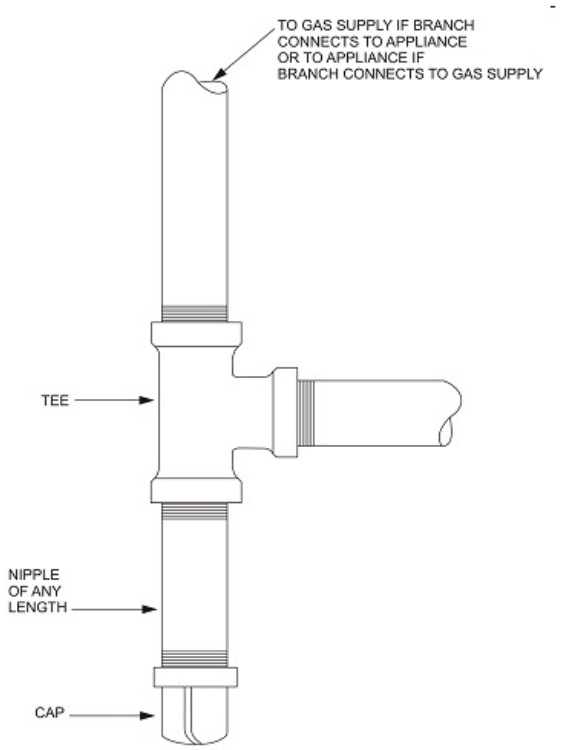

FIGURE G2419.4 METHOD OF INSTALLING A TEE FITTING SEDIMENT TRAP

Sufficient access needs to be provided to the trap for servicing, which includes enough space to allow the nipple or cap to be unscrewed and removed so any collected debris may be cleaned out.

From the 2010 Florida Building Code - Residential

- *SECTION G2419 (408) DRIPS AND SLOPED PIPING*
  - *G2419.4 (408.4) Sediment trap.*
    Where a sediment trap is not incorporated as part of the appliance, a sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical. The sediment trap shall be either a tee fitting having a capped nipple of any length installed vertically in the bottom-most opening of the tee or other device approved as an effective sediment trap. Illuminating appliances, ranges, clothes dryers and outdoor grills need not be so equipped.

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From the 2010 Florida Building Code – Fuel Gas

- *SECTION 408 (IFGC) DRIPS AND SLOPED PIPING*
  - *408.4 Sediment trap.*
    Where a sediment trap is not incorporated as part of the appliance, a sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical. The sediment trap shall be either a tee fitting having a capped nipple of any length installed vertically in the bottommost opening of the tee or other device approved as an effective sediment trap. Illuminating appliances, ranges, clothes dryers and outdoor grills need not be so equipped.

Photos of various sediment traps I have found over the years

- Sediment trap is properly configured – supply in at the horizontal tap, appliance connected to the top
- Sediment trap is BEFORE the appliance shut off valve instead of AFTER the appliance shut off valve

- Sediment trap is properly configured – supply in at the top, appliance connected to the horizontal tap
- Sediment trap is BEFORE the appliance shut off valve instead of AFTER the appliance shut off valve
- This trap serves two gas pool heaters, which is acceptable
- The regulator vent is too close to sources of ignition (a different subject, possibly for another newsletter)

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- Sediment trap is properly configured – supply in at the top, appliance connected to the horizontal tap
- Sediment trap is AFTER the appliance shut off valve as required

- Sediment trap is improperly configured – supply in at left side of horizontally placed tee, appliance connected to the right side of horizontally placed tee, down-leg from the tee tap does little, if any, good as a sediment trap
- Sediment trap is AFTER the appliance shut off valve as required
- The regulator vent is too close to sources of ignition (a different subject, possibly for another newsletter)

- This is supposed to be a sediment trap? Yes, it was intended to be one.

Another version of the sediment trap shown in the photo just – this configuration does little, if any, good.

(These last two photos were sent to me years ago by other inspectors, unfortunately,
I have misplaced their names and therefore cannot give them their due credit for the photos.)

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All contributors will be acknowledged and given credit for their contributions … please help others by sharing the items, issues, and tips you have found in the field or during plan reviews.

I look forward to all contributions.

Respectfully submitted,

Jerry Peck
Editor/Publisher
Inspectors' Field Comments Newsletter©
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