

# COUNTY OF PLACER Community Development Resource Agency

#### BUILDING

Administrative Policy Fire Sprinkler 13D Water Flow Switch

To:

**Building Department Staff** 

From: Ken Sibley, Supervising Inspector

Approved: Tim Wegner, Chief Building Officia

Effective Date: April 16, 2012

### ISSUE:

Placer County Fire is requesting a requirement for the addition of, and interconnection of a residential fire sprinkler water flow switch to the residential smoke detector alarm system.

# **BACKGROUND/HISTORY:**

With the recent adoption of the 2010 (CRC) California Residential Code, new one and two family dwellings and townhomes are now required to have an NFPA 13D automatic fire sprinklers installed. However, the code did not identify provisions for occupant notification in the event of activation of the fire sprinkler system.

#### **ANALYSIS:**

NFPA 13D section 7.6 Alarms; requires local water flow alarms be provided on all sprinkler systems in homes not equipped with smoke alarms or smoke detectors in accordance with NFPA 72, National Fire Alarm Code. However, these codes have exempted the use of a water flow switch if the home is equipped with smoke alarms.

As Placer County Fire has requested, the Building Division shall require for the addition of, and interconnection of, a residential fire sprinkler water flow switch to the residential smoke detector alarm system in all NFPA 13D fire sprinkler systems for new one and two family dwellings and townhomes. Today garages, attics, and similar spaces do not have smoke detectors, without these smoke detection devices in all areas, the fire sprinkler system may be activated in an un-detected area where occupants are unaware. The purpose of this added safety feature will allow, in the event of a fire sprinkler activation within the dwelling garage or attic, proper notification throughout the residence to alert occupants.

# **POLICY:**

- Water flow switch or other system activation devices as approved by the Placer County Fire shall be installed in type NFPA 13D fire sprinkler systems for new one and two family dwellings and townhomes.
- 2. A stand-alone fire sprinkler system (shall be separate and independent within the building from the water distribution system) and shall include a water flow switch.
- A multipurpose fire sprinkler system shall not be an allowed use. Multipurpose fire sprinkler system is defined as (passive purge type systems supplying domestic water to both fire sprinklers and plumbing fixtures) unless approved by Placer County Fire.
- 4. Water flow switch shall be a retarding type with a delay set between 30-45 seconds as per NFPA 72.
- 5. The fire sprinkler water flow switch shall be interconnected to the dwelling smoke alarm system.
- 6. Activation of the fire sprinkler water flow switch shall activate and sound the audible smoke alarms at each detector within the dwelling.
- 7. It is recommended that the use of an exterior alarm bell be used in conjunction with the above, but is not currently required. This would aide fire response to the scene and alert surrounding neighbors during an alarm event.