City of Rockville
Department of Community Planning and Development Services

TECHNICAL BULLETIN

No. #2017-1-ISD

SUBJECT: Smoke & CO Alarm requirements in 1& 2 Family Dwellings for alterations, repairs, and additions	CODE REFERENCE(S): **Chapter 5 § R314.2.2; R315.2 COMAR Public Safety Sect 9-101**
DIVISION: ISD ISSUED BY: Rabbiah Sabbakhan TITLE: Chief	
ISSUE DATE: 10-25-17 EFFECTIVE DATE: 11-8-17 REVISION DATE:	

BACKGROUND: Due to the critical role smoke alarms play in the protection of lives within dwelling units (1&2 family), code provisions for smoke alarms currently exist in two separate locations - the International Residential building code and the Code of Maryland (COMAR). Based on project examples brought to the attention of ISD, there is an apparent need to address questions concerning project applicability and code intent. This particular bulletin intends to clear up those questions and assist with determining which permit projects require smoke alarms in a residence to be updated to meet the Smoke Alarm upgrade requirements in IRC Section 314 and COMAR. This is intended to coordinate with other agencies as to when the requirement is enforced.

DISCUSSION: Based on previous submissions and continuous questions from contractors and owners there appears to be a need for clarifying two main issues.

1. How are the smoke alarm installation requirements, including interconnection, pursuant to 2015 IRC § R314.2, R315.2 and COMAR § 9-101 applied to permits?
2. What is exempt?

DISPOSITION: As a point of clarity, we offer the following:

1. Where an alteration, repair, or addition occur which requires a permit or a sleeping room is added or created, the dwelling unit shall be equipped with smoke alarms as a new dwelling. There are exceptions to the requirements:
    a. Work involving exterior surfaces (i.e., roofing, siding, windows, doors, porches, decks)
    b. Plumbing and mechanical work

2. Smoke alarm coverage in older homes constructed prior to January 1, 1989, must be upgraded to at least one approved smoke alarm on every level of the older home when any one of the following first occur:
    a. The existing smoke alarm is more than ten years old.
    b. The existing smoke alarm fails to respond or otherwise malfunctions.
    c. There is a change of tenant.
    d. A building permit is issued for an addition or renovation.
    e. January 1, 2018 at the absolute latest. To achieve the upgraded smoke alarm coverage noted above, smoke alarms shall be hard-wired units except that sealed battery-operated smoke alarms

with long-life batteries and silence/hush button features **may be installed** in locations of the home where hard-wired smoke alarms did not previously exist

3. Interconnection **is not** required in areas where no removal of interior finishes or ceilings has occurred, unless there is a basement or attic to which there is accessibly without removing the interior finishes.
    a. Wireless interconnection is acceptable
    b. COMAR does not require interconnection to gain compliance
4. Since solar panels installation is primarily exterior surface work (thus meeting the exception), the requirement for upgrading the smoke alarms would not be required or enforced on solar panel, shingles or PV installations**. Exterior lighting or receptacles shall be treated the same**.

5. Similarly, service entrance (SE) conductor cabling is almost exclusively installed on the exterior of the house; therefore, no smoke or CO alarms are required where SE cable requiring is the scope of work.

6. Electrical permits are not explicitly listed in R314.2.2 and R315.2.2 Exception #2,as electrical system changes do constitute an *alteration* as defined by the IRC; however, heavy up permits, fixture, appliances and equipment replacement by themselves fall beyond the scope of the an actual system modification intended to capture alarms in those respective sections and therefore do not require the installation of additional smoke or carbon monoxide alarms within the dwelling.

7. Rewiring of any approved type- i.e., FMC, MC, EMT, etc. is part of a direct change to the electrical system and would thus trigger smoke and carbon monoxide alarms in accordance with IRC.