



DATE: June 11, 2024
TO: Fire Alarm Contractors
FROM: Fort Worth Fire Marshal (<https://www.fortworthtexas.gov/departments/fire/services/bureau>)
RE: Smoke Alarm Low Frequency Requirement (Effective Date: 09/01/2024)

This notification is to inform all Fire Alarm Contractors working on R-1 or R-2 occupancies, as defined by the 2021 IBC and IFC, that as of **September 1, 2024**, the Fort Worth Fire Marshal will require compliance with the following code section from the 2021 IFC, without exception, within the City of Ft Worth:

907.5.2.1.3.2 Smoke alarm signal in sleeping rooms. In sleeping rooms of Group R-1 and R-2 occupancies that are required by Section 907.2.8 or 907.2.9 to have a fire alarm system, the audible alarm signal activated by single- or multiple station smoke alarms in the dwelling unit or sleeping unit shall be a 520-Hz signal complying NFPA 72.
Where a sleeping room smoke alarm is unable to produce a 520-Hz signal, the 520-Hz alarm signal shall be provided by a listed notification appliance or a smoke detector with an integral 520-Hz sounder.

Of note relative to the above code section is that the low frequency smoke alarm audible signal is only required for R-1 and R-2 sleeping rooms where a fire alarm system is required, which obviously allows for greater ease of achieving the low frequency signal with sounder bases, horns, or speakers, but will clearly increase the cost of installations vs. standard smoke alarms not having the low frequency capability.

The low frequency requirement continues to expand and grow in the codes/standards because research over the last 20 years has shown that these low frequency signals are more effective at waking sleeping occupants than the traditional alarm. In particular, the low frequency alarm is more effective for those in high-risk categories, such as children, elderly, those with hearing impairments, and those under the influence of alcohol.

The above policy change is Not retroactive to existing installations or new installations having a Fire Alarm Permit application entered with the City of Ft Worth Fire Department prior to the above effective date.

We appreciate your cooperation in the interest of life safety.

FIRE DEPARTMENT – BUREAU OF FIRE PREVENTION/FIRE MARSHAL’S OFFICE