

Carbon Monoxide Detection Requirements for Military Housing

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Carbon monoxide (CO) is a colorless, odorless, and tasteless gas that can cause sudden illness or death if a person is exposed to certain quantities. Often referred to as the "silent killer," CO poisoning kills over [430 people](#) annually in the United States (U.S.), and approximately [50,000 people](#) seek emergency medical treatment. [Most states](#) have enacted statutes or adopted regulations that require CO detectors or alarms in private dwellings. In these states, owners are required to install at least one battery-operated or hard wired CO detector or alarm in a housing unit.

Likewise, the Department of Defense (DOD) and the Military Services have taken CO risk reduction [measures](#) for housing they own and operate. However, DOD estimates about [63%](#) of military families live off-post in *private sector housing*, or otherwise not on a military installation in DOD-maintained property. This military population is subject to the CO safety measures enacted by state or local jurisdictions, which vary from robust to nonexistent. In addition, another [24%](#) of military families live in military *privatized housing* (i.e., housing built, maintained, and operated by private developers, though leased from DOD through a ground lease). Military privatized housing can be off-post or on a military installation, but in either case, CO detector or alarm requirements are generally determined by state and local laws, not DOD, unless explicitly written into privatized housing lease agreements.

What is DOD's Policy for CO Detectors?

DOD's Unified Facilities Criteria (UFC) requires the installation of CO detectors as part of its building facilities criteria for *family housing* constructed on DOD property. [UFCs apply](#) to the Military Departments, the Defense Agencies, and DOD Field Activities in accordance with DOD Directive 4270.5 (Military Construction). [UFC 4-711-01](#) states that DOD is to "provide CO detection in compliance with [the] [International Residential Code](#) (IRC), or UFC 3-600-01 as applicable" for family housing.

Additionally, the Military Services often issue separate policy and guidance that reinforce the CO detector requirement for service-owned real property, and, to a lesser degree for leased property. For example, [Commander, Navy Installations Command \(CNIC\) Instruction 11103.1](#) states that for military personnel who are authorized to live in government-owned or leased quarters, Public Private Venture (PPV) or community housing, the minimum acceptability criteria to meet military housing needs includes "fully operational smoke and carbon monoxide detectors and other safety features as required by State, Federal and Local codes." This means that for Navy-built housing, UFC 4-711-01 would be in effect. However, for Navy privatized housing (otherwise PPV under the Military Housing Privatization Initiative [MHPI]), UFC 4-711-01 would not generally apply, but state and local laws would. As discussed earlier, the

requirements for CO detectors and alarms vary by state.

The Military Services generally treat CO detection requirements for *unaccompanied housing* (i.e., housing for servicemembers without dependents) the same as those for family housing. For example, the Navy and Marine Corps' Unaccompanied Housing Facilities Criteria ([FC 4-721-10N](#)) states that for all service-owned new construction, renovation, and modernization projects, there will be installed "approved carbon monoxide detectors in all Navy and Marine Corps Unaccompanied Housing that contain carbon-based fuel burning systems."

What Laws Apply to CO Detection in Military Housing?

There are no federal laws that mandate CO detectors or alarms for residential housing in the United States, to include military housing in the private sector or on DOD property. State and local laws normally control CO detector and alarm installation. According to the National Conference of State Legislatures, [11 states require](#) CO detectors or alarms through the adoption of the IRC, or through an amendment to the state's building code. Another [27 states and the District of Columbia](#) provide in statute, to varying degrees, a requirement for CO detectors or alarms in private dwellings. However, even where there are laws in place for CO detectors or alarms, tenants must be familiar with the specifics of the law to ensure that they are protected from CO exposure. For example, in the state of [Virginia, CO alarm](#) installation in a dwelling unit is required only upon written request of the tenant. If such a request has not been made, there may not be a CO alarm in the dwelling. Some state's laws may apply only to newly constructed family dwellings, or may phase in the requirement for a CO detector or alarm over time. For military servicemembers and their families who relocate often, knowledge of state and local CO laws may not be readily attainable. Additionally, some states do not have any laws in place that require CO detectors or alarms in private dwellings.

Considerations for Congress

DOD policy is to first rely on the private sector to meet military housing needs, which includes both private sector housing (i.e., renting from the local community) and privatized housing (i.e., MHPI-contracted housing). However, most military families are not guaranteed CO detectors or alarms under DOD UFC or Military Service policy. Some off-post military families may be covered under the terms of a MHPI lease agreement, if an alarm or monitor is explicitly required, however, for most, installation requirements are a function of state and local laws.

If Congress seeks to ensure that military servicemembers and their families are protected from CO exposure, and to address disparate CO detection conditions in military housing, Members could consider:

- (1) directing DOD to mandate in housing regulations requirements for private contractors to install and maintain CO alarms in all MHPI-funded housing units;
- (2) requiring DOD leaders to inspect and report CO alarm installation and maintenance deficiencies on government-owned housing and MHPI-funded housing, in accordance with DOD policy and state and local laws; or
- (3) providing legislation to require any property owner in the U.S. who rents to military servicemembers and their families to install and maintain CO alarms in their leasable private dwellings or community housing units.

The possible benefits and costs of these options vary, and each might affect various federal, state, and local government stakeholders, including private sector actors, differently.