

# CO SAFETY IN HUD HOUSING

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# CARBON MONOXIDE DETECTION

**Carbon Monoxide:** CO is an odorless, colorless, and toxic gas produced by malfunctioning combustion of fuel in vehicles, stoves, lanterns, grills, fireplaces, gas ranges, furnaces, and similar appliances.

# CARBON MONOXIDE DETECTION

**Safety:** Each year, more than 400 Americans die from unintentional CO poisoning not linked to fires, more than 20,000 visit the emergency room, and more than 4,000 are hospitalized.

# **CARBON MONOXIDE DETECTION: HUD ENFORCEMENT**

- **HUD Notice (H 2022-01):** Enforcement Begins
- **December 27, 2022** (encouraged to install sooner)
- **Separate Guidance;** also incorporated into NSPIRE Standards
- **Congressional Pressure**
- **HCV, PHA, PBV, PBRA, Section 202, Section 811**
- **Local/State requirements** may already be in effect

# CARBON MONOXIDE DETECTION

**Informal Poll of LeadingAge Affordable Housing Members, Spring 2022:**

**Do you have CO detectors installed in units/areas of the building with a CO source?**

- yes - 67%
- no - 13%
- not sure - 13%
- not applicable - 8%

# CARBON MONOXIDE DETECTION: HUD ENFORCEMENT

- ONLY for units with fuel-burning appliance, attached garage, adjacent to CO source from which gases can flow
  - fuel-burning appliances;
  - fuel-burning fireplaces; and
  - adjacent spaces from which byproducts of combustion gases can flow.
- IFC Chapters 9 and 11
  - New Construction
  - Existing Structures

# CARBON MONOXIDE DETECTION: UNITS WITH CO SOURCE (NEW CONSTRUCTION)

## 915.1.2 Fuel-burning appliances and fuel-burning fireplaces.

Carbon monoxide detection shall be provided in *dwelling units*, *sleeping units* and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

## 915.1.3 Fuel-burning forced-air furnaces. P

Carbon monoxide detection shall be provided in *dwelling units*, *sleeping units* and classrooms served by a fuel-burning, forced-air furnace.

**Exception:** Carbon monoxide detection shall not be required in *dwelling units*, *sleeping units* and classrooms where a carbon monoxide detector is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

# CARBON MONOXIDE DETECTION: LOCATION (NEW CONSTRUCTION)

## 915.2 Locations.

Where required by Section 915.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.

### 915.2.1 Dwelling units.

Carbon monoxide detection shall be installed in *dwelling units* outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

### 915.2.2 Sleeping units.

Carbon monoxide detection shall be installed in *sleeping units*.

**Exception:** Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the *sleeping unit* where the *sleeping unit* or its attached bathroom does not contain a fuel-burning appliance and is not served by a forced air furnace.



# CARBON MONOXIDE DETECTION: HARDWIRING?

## Hardwiring Required: New Construction only!

### 915.4.1 Power source.

Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exception:** Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

# CARBON MONOXIDE DETECTION: HARDWIRING?

## Hardwiring Not Required: Existing Structures

### 1103.9 Carbon monoxide alarms.

Carbon monoxide alarms shall be installed in existing dwelling units and sleeping units where those units include any of the conditions identified in Sections 915.1.2 through 915.1.6. The carbon monoxide alarms shall be installed in the locations specified in Section 915.2 and the installation shall be in accordance with Section 915.4.

#### Exceptions:

1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detectors to be provided.
2. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source.
3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.

# CARBON MONOXIDE DETECTION: HARDWIRING?

- Existing Structures: Battery Operated ok
- New construction: Hardwired with battery back-up
- Combo smoke/CO detection ok
- NSPIRE Standards: Ten-Year Sealed Battery not currently planned for standards
- HUD not currently planning to inspect for date of code/applicability of hardwire requirement
  - Inspecting for presence, location, operability

## CARBON MONOXIDE DETECTION: NSPIRE

- Separate from NSPIRE (HUD Notice 2022-01)
- HUD required to use specific standards (IFC)
- NSPIRE Standards under development

# CARBON MONOXIDE DETECTION: FUNDING

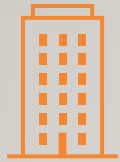
- Property/Owner Funds:
  - Reserve for replacement account, residual receipts, general operating reserves, owner contributions, or secondary financing
- Cost concerns among LeadingAge members
- Funding from Congress?

# CARBON MONOXIDE DETECTION: MORE INFORMATION

- **Fall 2022: Educational materials from HUD**
  - Formalized standard
  - Decision tree, educational materials
  - Stakeholder Call with LeadingAge

## CARBON MONOXIDE DETECTION: ADDITIONAL RESOURCES

- [International Fire Code, Chapter 9](#)
- [International Fire Code, Chapter 11](#)
- [Draft NSPIRE CO Standard](#)
- [Notice H 2022-01](#)
- [LeadingAge Overview Article of HUD CO Enforcement](#)



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