AMENDMENT PROPOSAL

Please provide all of the following items in your amendment proposal.

**Code Sections/Tables/Figures Proposed for Revision:**

DBC-IRC R315.1, R315.1.2, Definitions, R315.2.1

**Note:** If the proposal is for a new section, indicate (new).

**Proposal:**

Modify the current Denver amendment as follows:

**SECTION R315**

**CARBON MONOXIDE ALARMS**

Section R315.1 General Carbon-monoxide alarms is modified to add an Exception:

**Exception:** Dwelling units described as being regulated by the IRC in IBC Sections 308.3, 308.5 or 310, shall comply with IFCA 915.

**Section R315.1.2 Definitions is added:**

R315.1.2 Definitions. The following terms are defined for the purposes of this section:

CO (CARBON MONOXIDE). A colorless odorless gas that is produced as a result of incomplete burning of carbon-containing fuels.

CO ALARM. A single-station device or multiple-station group of devices listed per UL 2034 having a sensor that responds to CO. CO alarm devices may be monitored by an alarm control unit, but shall be powered independently of the alarm control unit and shall function autonomously in the event the alarm control unit is nonfunctional.

FUEL FIRED APPLIANCE. An appliance that is fueled by carbon-containing solid, liquid, and/or gaseous fuels; this definition includes a fireplace.

MULTIPLE PURPOSE ALARM. A single device that incorporates the capability to detect more than one hazard, such as smoke, vapors, and/or gases. Multiple purpose devices shall emit audible alarms in a manner that clearly differentiates between the detected hazards.

November 15, 2005
MULTIPLE STATION ALARM. [1] A single alarm device capable of being physically or wirelessly interconnected to one or more similarly capable devices so the actuation of any one device causes the appropriate notification signal to occur in all interconnected devices. [2] An interconnected group of single alarm devices defined in [1].

PLUG-IN. CO alarm with battery backup, installed by plugging into a standard electrical outlet for primary power.

SINGLE STATION ALARM. A single device comprised of a sensor, alarm-initiating device, control components, and an alarm notification appliance.

Section R315.2.1 is amended by adding the following language to the end of the section, and modifying items item 1 and 2.

CO alarms shall be multiple-station and hard-wired with battery backup.

1. The dwelling unit contains a fireplace or other fuel-fired appliance.
2. The dwelling unit has an attached garage.

Note: Show the proposal using **strikeout**, *underline* format. At the beginning of each section, one of the following instruction lines are also needed:

- Revise as follows
- Add new text as follows
- Delete and substitute as follows
- Delete without substitution

**Supporting Information:**

**Purpose:**
To better align the Denver code with the model 2018 I-Codes

**Reason:**

1) Within sections in the body of the code is not the appropriate location for definitions.
2) “Carbon monoxide definition” is not unique to code applications and thus does not need to be defined in the code. IRC 201.4 supports this concept by referencing the user to “ordinarily accepted meanings”
3) “CO alarm” definition is not necessary. The content of the definition is covered by others sections of 315, such as listing. Per UL 2034
4) “Fuel fired appliance” definition is not necessary because the inclusion of “Fireplace” is already addressed in the amendment to R315.2.1, exception 1.
5) “multiple-purpose alarm” definition is not necessary as this term is not used anywhere in the amendments or the IRC section. Rather, R315.4 references “combination alarms”
6) “single station alarm” and “multiple station alarm” definitions are not necessary, as they are only used once in the Denver amendments and their use is unnecessary. R315.1.1 Listing, describes the alarms that are permitted through their listing. R315.5 Interconnectivity, describes the interconnection of alarms with one another.
7) “plug-in” definition is not necessary as this term is not used in the Denver amendments of 315 or the IRC provisions of 315. In older homes were power may not be available in the locations required for CO alarms, a plug in option into a receptacle provides power from the building, whereas a battery only option is allowed under R315.2.2. I do not see any Denver amendments prohibiting plug in alarms and would not believe such amendment would be justified as unique to Denver.
8) Requiring CO alarms to be multiple-station in section 315.2.1 is inappropriate. This section is only related to when/where they are required for new construction. A home could be designed that only requires one, and thus a multiple-station alarm would not be necessary. R315.5 describes the interconnectivity required of alarms when there are more than one required.
9) Requiring CO alarms to be “hard-wired” in section 315.2.1 is inappropriate. The power source for CO alarms is described in R315.6, Power source. Requiring a hard-wired alarm would eliminate the use of a receptacle outlet powered alarm. If this is the intent of Denver, then justification should be provided as to why Denver is unique in this regard compared to the model code.
10) Amending item 2 regarding attached garages to remove the trigger that there be an opening that communicates with the dwelling is not unique to Denver. Current codes require a separation between the garage and dwelling that would not allow this communication if there were no door or other opening. If a new garage was added to an existing home, the provisions for garage/dwelling separation in R302.5 would handle CO migration. I am unable to think of a situation where this amendment would be necessary, nor can I see how it is unique to Denver.
11) The exception for when the IBC allows the IRC use is misplaced under the section title. This is not standard I-Code formatting. It is believed by this proponent that the exception is meant to be under R315.1.

**Note:** The following items are required to be included:

**Purpose:** The proponent shall clearly state the purpose of the proposed amendment to physical, environmental and customary characteristics that are specific to the City and County of Denver (e.g., clarify the Code; revise outdated material; substitute new or revised material for physical, environmental and customary characteristics; add new requirements to the Code; delete current requirements, etc.)

**Reasons:** The proponent shall justify changing the current Code provisions, stating why the proposal is necessary to reflect physical, environmental and customary characteristics that are specific to the City and County of Denver. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current does not reflect physical, environmental and customary characteristics that are specific to the City and County of Denver and explains how such proposals will improve the Code.
**Substantiation:** The proponent shall substantiate the proposed amendment based on technical information and substantiation. Substantiation provided which is reviewed and determined as not germane to the technical issues addressed in the proposed amendment shall be identified as such.

**Bibliography** (as needed): The proponent shall submit a bibliography when substantiating material is associated with the amendment proposal. The proponent shall make the substantiating materials available for review.

**Referenced Standards:**

Click or tap here to enter text.

List any new referenced standards that are proposed to be referenced in the code.

**Impact:**

There is no substantial affect on the code of design or construction

The proposal would result in the Denver code being more similar to the I-Codes.

**Note:** The proponent shall indicate one of the following regarding the impact of the amendment proposal:

- The effect of the amendment proposal on the cost of construction; Increase, Reduce, No Effect:
- The effect of the amendment proposal on the cost of design; Increase, Reduce, No Effect:
- Is the amendment proposal more- or less-restrictive than the I-Codes; More, Less, Same:

**Departmental Impact:**

The amendment will reduce the cost of code review, administration, and inspection due to the reduced training required of employees to understand the Denver amendments on top of their professional understanding of the model I-Codes.

**Note:** Indicate one of the following regarding the impact of the amendment proposal:

- The effect of the amendment proposal on the cost of review; Increase, Reduce, No Effect:
- The effect of the amendment proposal on the cost of enforcement/inspection; Increase, Reduce, No Effect: