**Code Amendment Proposal Form**

For public amendments proposed to the 2018 editions of the International Codes

**Instructions:** Upload this form and all accompanying documentation at [www.denvergov.org/BuildingCode](http://www.denvergov.org/BuildingCode). If you are submitting your proposal on a separate sheet, make sure it includes all information requested below.

All proposals must be received by **April 26, 2019**.

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**CONTACT INFORMATION**

<table>
<thead>
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<th>5/10/19</th>
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</tbody>
</table>

**By signing below, I hereby grant and assign to City and County of Denver all rights in copyright any authorship contributions I make to City and County of Denver in connection with this proposal. I understand that I will have no rights in any City and County of Denver publications that use such contributions in the form submitted by me or another similar form and certify that such contributions are not protected by the copyright of any other person or entity.**

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**AMENDMENT PROPOSAL**

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: **DBC-IFC-SC**

   If you submitted a separate coordination change to another code, please indicate which code:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
<th>Acronym</th>
<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC-xxxx</td>
<td>Denver Building Code–xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)</td>
<td>IFGC</td>
<td>International Fuel Gas Code</td>
</tr>
<tr>
<td>EBC</td>
<td>International Existing Building Code</td>
<td>IMC</td>
<td>international Mechanical Code</td>
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<tr>
<td>ECC</td>
<td>International Energy Conservation Code</td>
<td>IPC</td>
<td>international Plumbing Code</td>
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<tr>
<td></td>
<td></td>
<td>IRC</td>
<td>international Residential Code</td>
</tr>
</tbody>
</table>

2) Please check here if a separate graphic file is provided: ☐

   *Graphics may also be embedded within your proposal below.*

3) Use this template to submit your proposal or attach a separate file, but please include all items requested below in your proposal. The only formatting needed is **BOLDING, STRIKEOUT AND UNDERLINING**. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by CPD.

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

DBC-IBC 909.15.6 (new)

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

**Proposal:**

- **909.15.6 Smoke removal.** To facilitate smoke removal in post-fire salvage and overhaul operations, the building shall be equipped with mechanical ventilation for removal of products of combustion at an exhaust rate of 4 air changes per hour. Return or exhaust air shall be moved directly to the outside without recirculation to other portions of the building.
  - 1. Smoke removal system may be whole building or a floor-by-floor localized system
  - 2. Smoke removal system may be dedicated or may utilize the building’s HVAC system and controls.
3. Smoke removal systems are not required to be on emergency power.
4. Smoke removal systems and controls are not required to be UL846 and UUKL listed.
5. Smoke removal system panel shall be separate from the FSCP and shall require a keyed switch for activation of the panel.
6. Smoke removal zones shall be automatically controlled by a single toggle switch on the smoke removal panel.

**Supporting Information:**
Current smoke control acceptance testing in the City and County of Denver has been looking to maintain minimum air change rates on the fire floors. This method of testing is placing an air change requirement that is not intended for pressurization method smoke control systems. IBC 909.6 Pressurization Method “The primary mechanical means of controlling smoke shall be by pressure differences across smoke barriers. Maintenance of a tenable environment is not required in the smoke control zone of origin.” Adding an air change rate requirement to a pressurization method smoke control system is not supported by the IBC and can lead to overly complex life safety system designs and sequences.

The proposal aims to maintain the life safety system requirements and introduce the requirement of IBC 403.4.7 into the DBC IFC-IBC 909 amendments. The IBC requires a post-fire smoke removals system in high-rise buildings. The IBC identifies the smoke removal system as a non-life safety system. Therefore, the smoke control listing and survivability requirements of IFC-IBC 909 do not apply.

This proposal provides a method to achieve an exhaust air change rate for a post-fire mop up conditions while maintaining the life safety smoke control system in accordance with previous DBC IFC-IBC Amendments.

**Referenced Standards:**

- IBC 403.4.7
- IBC 909

**Impact:**
This proposal allows for the use of building HVAC equipment and controls system for post-fire smoke removal systems. Achieving 4 ACH of exhaust is achievable without putting undo burden on the system and matches similar requirements for high-rise buildings located in other jurisdictions. The post-fire smoke removal system control panel can be setup to be automatically controlled through building automation system for proper sequencing of fans and dampers to activate the post-fire salvage and overhaul mode. This will prevent inadvertent damage to building systems that could be caused by manual manipulation of ON-OFF, OPEN-CLOSE switches on the FSCP.

**Note:** Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

- The effect of the proposal on the cost of construction: ☐ Increase ☒ Reduce ☐ No Effect
- The effect of the proposal on the cost of design: ☐ Increase ☒ Reduce ☐ No Effect
- Is the proposal more or less restrictive than the I-codes: ☐ More ☐ Less ☒ Same

**Departmental Impact:** (To be filled out by CPD staff)

**Note:** CITY STAFF ONLY. Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

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