



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

May 2018
Log No. _____

1. State Building Code to be Amended:

- | | |
|---|---|
| <input checked="" type="checkbox"/> International Building Code | <input checked="" type="checkbox"/> International Mechanical Code |
| <input type="checkbox"/> ICC ANSI A117.1 Accessibility Code | <input type="checkbox"/> International Fuel Gas Code |
| <input type="checkbox"/> International Existing Building Code | <input type="checkbox"/> NFPA 54 National Fuel Gas Code |
| <input type="checkbox"/> International Residential Code | <input type="checkbox"/> NFPA 58 Liquefied Petroleum Gas Code |
| <input type="checkbox"/> International Fire Code | <input type="checkbox"/> Wildland Urban Interface Code |
| <input type="checkbox"/> Uniform Plumbing Code | |

For the Washington State Energy Code, please see specialized [energy code forms](#)

Section(s): 2024 IBC Section 717.2.3 & 2024 IMC Section 607.2.3

Title: Static Dampers

2. Proponent Name (Specific local government, organization or individual):

Proponent: Eric Vander Mey, PE

Title: Principal

Date: 9/19/2024

3. Designated Contact Person:

Name: Eric Vander Mey

Title: Delta E Consulting

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E-Mail: ericv@deltaeconsulting.com

4. Proposed Code Amendment. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code, additional pages may be attached.

Clearly state if the proposal modifies an existing amendment or if a new amendment is needed. If the proposal modifies an **existing amendment**, show the modifications to the existing amendment by underlining all added language and striking through all deleted language. If a new amendment is needed, show the modifications to the **model code** by underlining all added language and striking through all deleted language.

Code(s) **2024 International Building Code (IBC)**
Section(s) **717.2.3**

Enforceable code language must be used.
Amend section to read as follows:

Base language in black text is from 2024 IBC
See revisions proposed below with track changes in blue text

[BF] 717.2.3: Static dampers.

Fire dampers and ceiling radiation dampers that are listed for use in static systems shall be installed only in heating, ventilation and air-conditioning systems that are automatically shut down in the event of a fire.

The heating, ventilation and air-conditioning system shall be automatically shut down in the event of a fire by one of the following control operations:

1. Duct smoke detection: Upon activation, the duct smoke detectors shall shut down all operational capabilities of the air distribution system in accordance with the listing and labeling of *appliances* used in the system. Duct smoke detectors shall be provided in the return, exhaust or relief airstream, duct smoke detectors shall comply with UL 268A, and shall be installed in accordance with *International Mechanical Code* Section 606.3.
2. Area smoke detection: Upon activation, the area smoke detectors shall shut down all operational capabilities of the air distribution system in accordance with the listing and labeling of *appliances* used in the system. Area smoke detectors shall be provided in all portions of the building serviced by the air distribution system. Area smoke detectors shall be connected to a fire alarm system in accordance with the *International Fire Code* and comply with *International Mechanical Code* Section 606.4.1.
3. Dwelling unit area smoke detection: For air distribution systems that serve only one dwelling unit the area smoke detection system within the dwelling unit will be used for shut down in the event of a fire. Upon activation, the dwelling unit area smoke detector shall shut down all operational capabilities of the air distribution system in accordance with the listing and labeling of *appliances* and smoke detector used in the system. Area smoke detectors shall be connected to a fire alarm system in accordance with the *International Fire Code* and comply with *International Mechanical Code* Section 606.4.1.
4. Duct heat detection: Upon activation, the duct heat detectors shall shut down all operational capabilities of the air distribution system in accordance with the listing and labeling of *appliances* used in the system. Duct heat detectors shall be provided in the return, exhaust or relief airstream and shall have an activation temperature that is approximately 50°F (28°C) above the normal temperature within the duct system, but not less than 125°F (52°C) and not greater than 200°F (93°C).

- 5. Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

The building and mechanical code are silent on acceptable means of shut down for HVAC systems with static dampers. These provisions for static dampers were introduced in the 2015 IBC and have been modified for several code cycles.

This provides several options for shutdown consistent with IMC requirements for shutdown of other systems.

Amendments to the IBC should be matched in the IMC.

- 6. Specify what criteria this proposal meets.** You may select more than one.

- The amendment is needed to address a critical life/safety need.
- The amendment clarifies the intent or application of the code.
- The amendment is needed to address a specific state policy or statute.
- The amendment is needed for consistency with state or federal regulations.
- The amendment is needed to address a unique character of the state.
- The amendment corrects errors and omissions.

7. **Is there an economic impact:** Yes No

If no, state reason: [This only clarifies multiple options that are acceptable for shutdown as the code does not provide specific direction on acceptable means of shutdown. Designer can select appropriate means of shutdown depending on the size of the HVAC system.](#)

If yes, provide economic impact, costs and benefits as noted below in items a – f.

a. **Life Cycle Cost.** Use the OFM Life Cycle Cost [Analysis tool](#) to estimate the life cycle cost of the proposal using one or more typical examples. Reference these [Instructions](#); use these [Inputs](#). Webinars on the tool can be found [Here](#) and [Here](#)). If the tool is used, submit a copy of the excel file with your proposal submission. If preferred, you may submit an alternate life cycle cost analysis.

b. **Construction Cost.** Provide your best estimate of the construction cost (or cost savings) of your code change proposal.

[Click here to enter text.](#)/square foot

(For residential projects, also provide [Click here to enter text.](#)/ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

c. **Code Enforcement.** List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

d. **Small Business Impact.** Describe economic impacts to small businesses:

e. **Housing Affordability.** Describe economic impacts on housing affordability:

f. **Other.** Describe other qualitative cost and benefits to owners, to occupants, to the public, to the environment, and to other stakeholders that have not yet been discussed:

Please send your completed proposal to: sbcc@des.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.