

**DIVISION OF BUILDING SAFETY  
APPLICATION FOR REVIEW OF A PROPOSED STATEWIDE AMENDMENT  
TO STATE ADOPTED CODES  
2012 Code Adoption Cycle**

Log# \_\_\_\_\_  
(Office Use Only)

**PLEASE FOLLOW INSTRUCTIONS ON PAGE FIVE**

**1. State Building Code to be Amended:**

<input type="checkbox"/> International Building Code	<input type="checkbox"/> International Energy Conservation Code
<input checked="" type="checkbox"/> International Residential Code	<input type="checkbox"/> International Mechanical Code
<input type="checkbox"/> International Fuel Gas Code	<input type="checkbox"/> National Electrical Code
<input type="checkbox"/> International Existing Building Code	<input type="checkbox"/>
<input type="checkbox"/> Idaho State Plumbing Code	<input type="checkbox"/>

**Section:** R303.4

**Page:** 53

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

Jason Blais, City of Boise

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**3. Signed:**

	City of Boise Building Official	6-25-14
<b>Proponent</b>	<b>Title</b>	<b>Date</b>

**4. Designated Contact Person:**

Jason Blais	City of Boise Building Official
<b>Name</b>	<b>Title</b>

**Address:** City of Boise – Planning & Development Services (PDS)  
P.O. Box 500  
Boise, ID 83701

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384-3807

<b>Office Phone</b>	<b>Cell</b>	<b>Fax</b>
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**E-mail address:** jblais@cityofboise.org

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**5. Proposed Code Amendment.** Use 'legislative format' including both old and new language. See instructions on page five for specific details. Please attach a separate sheet for each separate proposal.

2012 IRC	R303.4	53
<b>Code</b>	<b>Section</b>	<b>Page</b>

**Please note number of additional pages:**

Insert section R303.4 to read as follows:

**R303.4 Mechanical ventilation.** Dwelling units shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

**Exception:** Where the air infiltration rate of a dwelling unit is equal to 5 air changes per hour or greater when tested with a blower door at a pressure of 0.2 inch w.c. (50 pa) in accordance with Section N1102.4.1.2.

**Supporting Data for Statewide Amendment Proposals.** This information is required for all statewide amendment proposals. **Attach supporting documentation, as necessary; incomplete proposals will not be accepted.**

The governing boards require supporting data on any amendment proposal to show:

1. That it meets basic criteria – See Part I to specify how this proposal meets the criteria for code amendment.
2. The intended effect – See Part II to describe the purpose of the proposed amendment, including the benefits and the problems addressed.
3. The potential impacts or benefits to business – See Part III/Types of Construction, to explain how methods in construction businesses, industries and services would be affected.
4. The potential impacts on enforcement procedures, See Part III/Types of Services required, to provide some analysis of the impacts on code enforcement in local jurisdictions.
5. Economic costs and benefits – Use the Table in Part IV of this form to estimate the costs and benefits of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance.

**Part I ♦ Background information on amendment.**

Code references: R303.4

Title: Mechanical ventilation

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Related Codes: None

(Does this amendment change other related codes?)

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Proponent: Jason Blais

Phone: 384-3807

Date: 6/25/14

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**NOTE:** Amendments to the state building code must be based on one of the following criteria; please indicate the pertinent rationale for the proposed amendment by selecting from the list below:

- (1) The amendment is needed to address a critical life/safety need.
- (2) The amendment is needed to address a specific state policy or statute.
- (3) The amendment is needed for consistency with state or federal regulations.
- (4) The amendment is needed to address a unique character of the state.
- (5) The amendment corrects errors and omissions.

**Part II ♦ Amendment Benefit:**

**PROBLEM(S) ADDRESSED** (Describe the intended effect of the proposed code amendment):

Section R303.4 Mechanical ventilation was deleted out of the code by the Idaho Building Code Board with the recommendation of the Code Collaborative during the adoption process of the 2012 IRC. At the time, it was unknown what the average air changes per hour were for typical homes being constructed. Since that time, data has been collected on homes across the state. For example, NEEA collected data from 600 homes showing the average air changes per hour (ACH) at 3.6. Data within the City of Boise is also showing numbers with a similar average. This is well below the threshold of less than 5 air changes per hour where whole-house mechanical ventilation needs to be provided within dwellings.

This new amendment re-establishes the scoping in the building code requiring mechanical whole-house ventilation in all dwelling units. An exception has been added stating whole-house mechanical ventilation is not required when it can be shown that the air changes per hour is at 5 or greater when a blower door test is conducted. Crafting the amendment language in this manner does not mandate blower door testing on all dwellings as the original language for IRC Section R303.4 stated. Important to note that the amended IECC requires building envelope tightness to be less than 7 ACH as a maximum threshold.

**PRIMARY REASON FOR AMENDMENT:** (Describe how the amendment meets one of the criteria listed above)

This amendment addresses a life/safety/health need regarding the air quality for occupants in newly constructed dwellings. Energy codes are working and builders are doing a good job of air sealing houses. Tighter homes result in more energy efficiency but also necessitate the need to provide ventilation (fresh air) into the home for occupants.

The mechanical portions of the IRC already specify how to install whole-house mechanical ventilation and a current state amendment from the Idaho HVAC Board further clarifies sizing. There are several options for whole-house ventilation including some that are relatively inexpensive such as the fresh air duct method.

With the new knowledge of statistical data on the air changes per hour within newly constructed homes in Idaho, this amendment will correct the previous action of deleting Section R303.4 Mechanical ventilation from the building code, making homes safe, healthy and livable for our citizens.

This issue has been presented and discussed with the Code Collaborative and the Idaho HVAC Board. Both groups agreed this issue is of concern for safety and health indicating support for this amendment.

**TYPE OF BENEFITS PROJECTED:**

**Part III ♦ Amendment Impacts or Benefits:**

**TYPES OF CONSTRUCTION:**  New Construction  Alteration/Tenant Improvement/Repair  
 Residential-Single Family  Residential-Multi Family  Commercial  Industrial

**List businesses/industries affected by amendment:**

Manufacturers: \_\_\_\_\_  
 Specific Construction Contractors & Trades: Building Contractors / mechanical Contractors  
 Construction Supply Industry: \_\_\_\_\_  
 Specialty Trades: \_\_\_\_\_  
 Types of Buildings: \_\_\_\_\_  
 Fire Protection Industry: \_\_\_\_\_

**Types of Services Required:**

**Reporting:** Brief Description \_\_\_\_\_  
 **Record Keeping:** Brief Description \_\_\_\_\_  
 **Other:** Brief Description \_\_\_\_\_  
 **Indirect Cost to Industry:** Indicate whether there are multiple sources to obtain the equipment, material or service required by this proposal. If not, provide a justification of the benefit versus small business impact.

**Part IV ♦ Amendment Costs and Benefits**

Building Type	Construction <sup>1</sup>			Enforcement <sup>2</sup>			Operations & Maintenance <sup>3</sup>		
	Costs	% impact <sup>4</sup>	Benefits <sup>5</sup>	Costs	% impact	Benefits	Costs	% impact	Benefits
Residential	\$200 to	very low	yes - construct healthy homes.	0	very low	yes public safety	0	0	yes - occupant
Single family	\$450	very low		0	very low		0	0	yes - occupant live in healthy safe home.
Multi-family									
Commercial/Retail									
Industrial									
Institutional									

1 \$ / square foot of floor area or other cost. Attach data. **Construction** costs are costs prior to occupancy, and include both design and direct construction costs that impact the total cost of the construction to the owner/consumer.  
 2 Cost per project plan. Attach data. **Enforcement** costs include governmental review of plans, field inspection, and mediated litigation required for enforcement.  
 3 Cost to building owner/tenants over the life of the project.  
 4 Cost differential over a specific size project or range of projects as determined by the proponent. Provide sufficient cost and benefit detail to clarify the impact to the Council. All data should be created and referenced to third party reputable sources for verification.  
 5 Note sectors with measurable benefit from Part II, including benefits to a) the user, b) the public, c) the industry, and/or d) the economy; use e) for all of the above.