



# Building America

## Stump the Building Science Chump Codes Panel

July 26, 2017

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U.S. Department of Energy

Lena Burkett

Panelists

**Pam Cole – Pacific Northwest National Laboratory**

**David Kaiser – Department of Consumer & Regulatory Affairs**

**Gil Rossmiller – Colorado Code Consulting**

Moderator:

**Linh Truong – National Renewable Energy Laboratory**

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# Some Housekeeping Items (cont'd)

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# Agenda

- ✓ Welcome and Introductory Remarks
- ✓ Overview of Building America (buildingamerica.gov)
  - Linh Truong - National Renewable Energy Laboratory
- ✓ Speaker Panel
  - Pam Cole – Pacific Northwest National Laboratory
  - David Kaiser – Department of Consumer & Regulatory Affairs
  - Gil Rossmiller – Colorado Code Consulting
- ✓ Questions and Answers
  - ✓ Moderated by Lena Burkett – U.S. Department of Energy
- ✓ Closing Remarks

# Building America

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- Program information
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- *Building America Update* newsletter
- Building America Solution Center
- Publications Library

[www.buildingamerica.gov](http://www.buildingamerica.gov)



# Pam Cole, Pacific Northwest National Laboratory



Pam Cole serves as a Building Energy Efficiency Scientist at PNNL. For the past 15 years, she's worked with residential and commercial building energy codes regarding adoption and compliance. Cole primarily works under the Department of Energy's Building Energy Codes Program, overseeing compliance and technical assistance for national model and state-specific energy codes.

She also supports the DOE's Building America program under the Codes and Standards Innovation project, where she helps identify and remove barriers for bringing building science innovations to market.

# David Kaiser – Department of Consumer & Regulatory Affairs



David Kaiser is a green plan reviewer at Department of Consumer and Regulatory Affairs in Washington, DC, where he is responsible for the program development and review of the Green Construction Code and the Energy Code. Current efforts on energy code enforcement have improved the District of Columbia's energy code compliance score by over 20 points as evaluated by an outside firm.

David has more than 10 years of experience as a mechanical engineer, assisting in the design, construction, renovation, commissioning, and verification of buildings as related to building performance.

# Gil Rossmiller – Colorado Code Consulting



Gil Rossmiller is a building code consultant with Colorado Code Consulting in Denver, Colorado.

For 15 years, Gil was the chief building official for the Town of Parker in Colorado.

Having been in the construction industry for over 30 years, Gil brings a hands-on perspective to building code enforcement. Gil has been active in building code and ‘green’ code development. He served on code development committees for the International Residential Code/Plumbing and Mechanical for the 2009 and 2012.



# Question

Does duct testing require a third party to run the test?

Does air leakage testing require a third party to run the test?

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# Question

Would a supply-only duct line into an unvented attic or sealed crawlspace be sufficient to manage moisture loads levels in these spaces? The goal is to support the proper design of these assemblies, while eliminating a code-compliance complication (need for a 15-minute thermal barrier or equivalent) when using spray foam in attics or crawlspaces. When allowing the lesser ignition barrier or equivalent performance, all Code Compliance Reports / ESR indicate “Air in the attic or crawl space is not circulated to other parts of the building”.

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# Question

IRC seems to allow any combustion equipment with vents to supply combustion air in “unvented” conditioned attics. Isn't that super risky (safety and humidity risks) and defeating of conditioned attic purpose? Is it OK in a basement but not in an attic? Why? What should the code stipulate regarding combustion equipment in conditioned attics?

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To ask a question:

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# Question

How should compliance be shown for a 3 story mixed use building that has two stories of residential and one story of retail? (2015 IECC/2015 IRC)

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To ask a question:

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# Question

4+ story apartments are allowed under the IMC to use natural or mechanical ventilation systems. Many apartments are not able to comply with the 4% of openable area requirement in order to claim natural ventilation. Homes and low-rise apartments, where mechanical ventilation is more prevalent, most often rely on exhaust only or supply only systems. (e.g. continuous bath fans, CFIS) Can these same style systems be employed on 4+ story apartments? If not, what options are available to apartments for compliance?

# Stump the Building Science Chumps



**To ask a question:**

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# Question

How can we ventilate existing multifamily buildings in a manner that is effective and efficient? Standard historical practice and continuing practice for multifamily mechanical ventilation is to draw exhaust from baths/kitchens and to supply make-up air to corridors. Section 601 of the 2015 IMC prohibits this.

- *Is there a loop hole, or transfer grille in the code that could let this work?*
- *Can we use “transfer air” from the corridor and make that corridor “super fresh” and pre- or over-conditioned?*
- *Can we address the need for fire separation by fitting a fire damper to a transfer grille in the wall separating the corridor from the apartment?*
- *To assure ventilation distribution, can we use a fan in a transfer duct with fire dampers in the corridor-apartment wall?*

# Stump the Building Science Chumps



To ask a question:

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# Question

Why are a majority of developers able to do residential construction (typically wood frame) without doing continuous insulation?

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To ask a question:

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# Question

How should compliance be shown for high performance roofs, walls and floors?

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[Interior Paints and Finishes Certified Low-Emission](#)

Last Updated: August 19, 2016

[Certified Low-Emission Carpet Adhesives and Carpet](#)

Last Updated: July 27, 2016

[Certified Low-Emission Composite Wood Products](#)

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### RECENTLY ADDED CONTENT

[Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers Version 1.1 \(California 01350\)](#)

Reference Posted: August, 2016

[Interior paints and finishes certified low-emission](#)

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<https://basc.pnnl.gov/code-compliance>

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