Residential Weatherization

Update on delivery - Specifications, Tools & Trainings

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Please mute your phones

Objectives for Today

- Review timeline and utility feedback
- Overview of major program changes
- Discuss future plans
- Answer utility questions

Timeline

- August 2011 – RTF releases WX Specifications
- June 2012 – Sub-Regional meetings feedback
- Summer 2013 – Contract with Saturn Resource Management, Inc.
- Fall/winter 2013 – Develop specs with WAG* input
- April 2014 – Release WX Specifications and Resources
- June-Aug 2014 – Produce field tools based on utility input
- Ongoing – Feedback from customers (contact crdale@bpa.gov or your EER)

*Weatherization Advisory Group – 13 individuals representing 11 public utilities

Sub-Regional Meeting Feedback

- New RTF Specifications were complex, increased costs
- Requirements not aligned with efficiency
- Lack of weatherization support
- Utility feedback summarized here

BPA's Response

- Work with a utility advisory group
- Revamp specifications to reflect utility feedback
- Produce tools and trainings to support Wx
- Continuously solicit feedback from utilities

Major Changes to Specifications

- Used plain language, improved organization
- Removed programmatic and non-energy requirements
- Simplified interactions with code

Weatherization Resources

- Current Resources
  - External Website
  - 2014 Weatherization Specifications
  - Summary of Changes
  - Best Practices Field Guide
  - www.WxTrainingNW.com – Training modules
- For October 2014
  - Field Tools – Info sheets and calculators
  - Templates, checklists

Specifications – Example Page

4.3 Passive Attic Ventilation

Each separate attic space must meet the following requirements. *Exception*: Code officials may determine that attic ventilation is unnecessary because of local conditions.

1. The net free area (NFA) of attic vents must be no less than $^{1}/_{150}$ of the area of the space ventilated.
2. The NFA may be reduced to $^{1}/_{300}$ of the area, provided that at least 40% and no more than 60% of the required ventilating area is provided by vents located within 3 feet of the ridge.
3. Vents must have screens with an opening of not more than ¼ inch and not less than $^{1}/_{16}$ inch.
4. Vents on exposed vertical surfaces must have louvers.
5. Contractors must not install air turbines in order to comply with the ventilation requirements of this section. However, contractors may include the net free area of existing air turbines by estimating the net free area of the air turbine in a fixed position (not turning).

Best Practices Field Guide

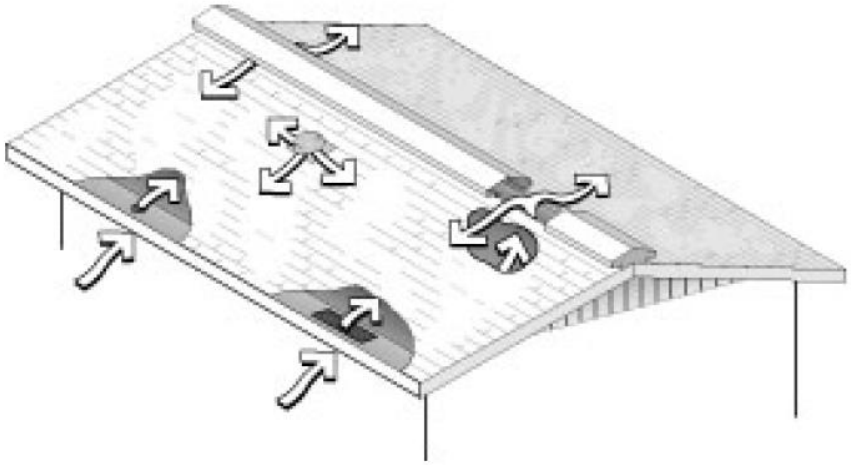
4.3 Passive Attic Ventilation

Air leakage can carry moisture from the living space into an attic. Moisture also migrates through vapor-permeable building materials into the attic. In most homes, air leakage is the primary cause of attic moisture problems. Once in the attic, moisture can condense on colder surfaces and cause rot or mold growth. Adding insulation to the ceiling can make moisture problems worse because less heat migrates to the attic to dry the building materials after the insulation is installed.

Attic ventilation helps to keep the attic dry and helps prevent ice dams in cold climates. Each separate attic space must meet the following requirements. *Exception*: Code officials may determine that attic ventilation is unnecessary because of local conditions.

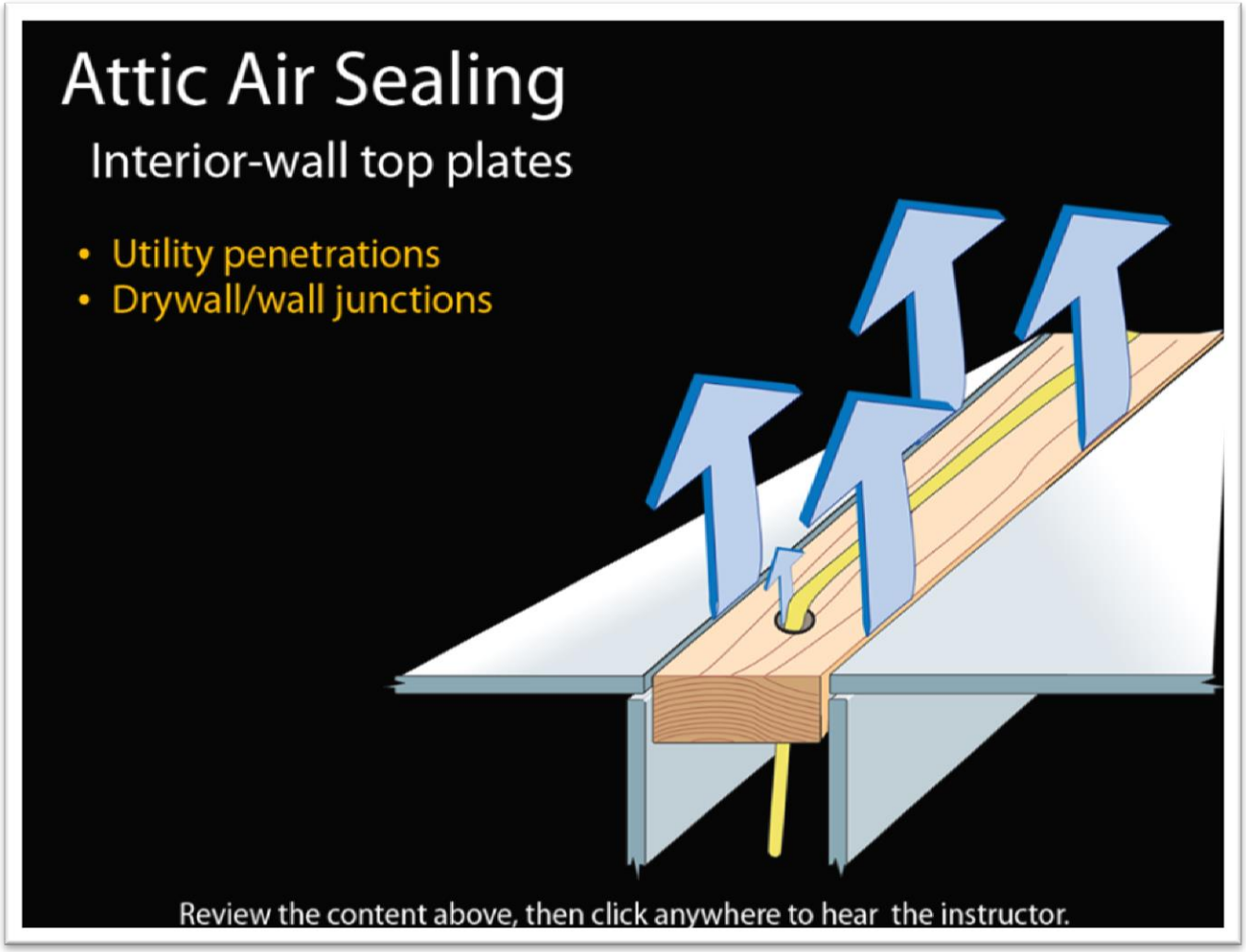
1. The net free area (NFA) of attic vents must be no less than $^{1}/_{150}$ of the area of the space ventilated.
2. The NFA may be reduced to $^{1}/_{300}$ of the area, provided that at least 40% and no more than 60% of the required ventilating area is provided by vents located within 3 feet of the ridge.
3. Vents must have screens with an opening of not more than $^{1}/_{4}$ inch and not less than $^{1}/_{16}$ inch.
4. Vents on exposed vertical surfaces must have louvers.
5. Contractors must not install air turbines in order to comply with the ventilation requirements of this section. However, contractors may include the net free area of existing air turbines by estimating the net free area of the air turbine in a fixed position (not turning).

Best Practices Field Guide



Low and high attic ventilation:
Distributed ventilation — high and low — is more effective than vents that aren't distributed

WxTrainingNW.com



New Measures

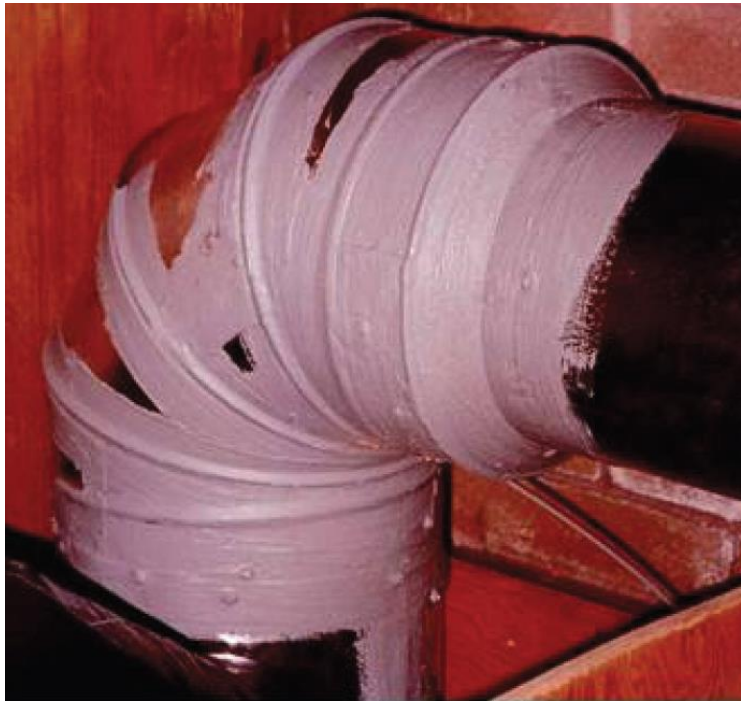
- Prescriptive air sealing
- Prescriptive duct sealing
- Duct insulation (tentative)

Prescriptive Air Sealing

- Checklist of locations and sealing practices
- Intended to accompany attic or floor insulation

Prescriptive Duct Sealing

- PTCS requirements, no testing
- Similar savings
- Use site registry
- Trainings/ orientation
- QA



The Future

- Field tools
  - Weatherization pamphlet
  - Attic ventilation calculator
  - Ventilation calculator
  - Indoor air quality
  - Understanding your attic
  - Duct sizing chart
  - Key materials list
- Templates
- Checklists
- Homeowner education
- Weatherization roadshow

Thank You!

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