



BPA Residential Weatherization Specifications

Frequently Asked Questions

Q: Why did BPA update the Weatherization (Wx) Specifications?

A: In 2011 the RTF completed an update to their Weatherization Specifications, last updated in 2006. However, that update included elements beyond energy savings. Public utilities asked BPA to seek their input and feedback before adopting the 2011 RTF Wx specifications.

Q: What are the main changes that made it into the 2014 BPA Residential Specifications?

A: We have created a Res Wx Specs – Summary of Changes for chapter-by-chapter detail. The principles guiding the updates to the specifications are listed below:

- Remove requirements that are not connected to energy savings.
- Preserve the elements that energy savings are dependent upon.
- Use clear language and improve the organization so the Specification is easy to use and understand.
- Better reflect standard practices in the weatherization industry.
- Remove programmatic requirements that create hurdles for program implementers.
- Simplify requirements that overlap with building code.

Q: What other resources are available to support utility Residential Weatherization programs?

A: In addition to the updated Wx specification, BPA has developed a package of weatherization tools, including:

- Residential Weatherization Best Practices Field Guide: Expands on the new specifications with step-by-step instructions, building science concepts, and best practices.
- Online training modules: Free webinar-style trainings found at www.WXTrainingNW.com.
- Weatherization Tools Packet (under development): A series of 1-2 page brochures, calculation worksheets, and issue summaries to be used in the field by contractors and weatherization program field staff. Utility input is requested.
- Templates: Customizable pre-made forms that utility programs can use as incentive applications and to meet documentation requirements. Utility input is requested.

Q: Can utilities modify the specifications?

A: Utilities may always set their program requirements higher than BPA's requirements or specifications to better fit their program and service territory. BPA considers these specifications to be minimum requirements. Email crdale@bpa.gov to request a word version of the specifications.



Q: Where in the specifications are utilities most likely to add requirements?

A: BPA's weatherization specifications are used by over 130 utilities, and those utilities run weatherization programs very differently. BPA allows utilities to customize the specifications as long as the minimum requirements are met. Here is a list of elements that utilities may want to customize:

- Add R-values or leakage reductions for each measure
- Require prescriptive air sealing before insulation is installed
- Require an in-progress inspection of prescriptive attic air sealing
- Require more clearance around non-IC rated lights when sealed with an airtight box
- Establish minimum R-value for "hot roof" insulation according to state code
- Rules for qualification, such as definitions of electric primary heat
- Require a vapor barrier on duct insulation where air conditioning is present

Q: Why has the ventilation requirement for Whole-House Air Sealing changed?

The old ventilation standard of 0.45 air changes per hour (ACH) was outdated. The new calculation is similar, but considers the effectiveness of bath and kitchen exhaust fans at removing moisture. Assuming those fans are working properly, the equation $0.03 \times \text{AFloor} + 7.5(\text{NBR} + 1)$ is roughly equivalent to the old requirement.

Full bathrooms need a fan that removes 50 CFM and kitchens need a fan that removes 100 CFM, as measured by the air sealing technician. An operable window can contribute 20 CFM to this requirement. Any deficit in spot ventilation may be made up by greater ventilation in the rest of the house. Add a quarter of each deficit to the whole-house requirement explained in the previous paragraph.

For example, a bathroom with an old fan delivers only 10 CFM of exhaust, but the bathroom has a window. That's a total of 30 CFM available, so the deficit is $50 - 30 = 20$ CFM. 20 divided by 4 is 5, so add 5 CFM to the whole-house requirement. Repeat this process for the kitchen and each bathroom.

This new element of spot ventilation allows contractors and homeowners more options when a home is slightly below the threshold for needing continuous fan-powered ventilation. For example, installing a kitchen fan where none exists will reduce that threshold by 25 CFM, and may be more desirable than a continuously-running fan in the hallway.

Remember that some houses will have indoor air quality problems that can't be solved by ventilation, or which require more ventilation. Also, please note that the N-factors used for this standard are different than those used by ASHRAE 62.2-2013.

Q. Who can I contact for my other questions related to the Weatherization specifications or requirements?

A. Please contact Courtney Dale, Residential Weatherization Program Support at crdale@bpa.gov, 503-230-3640 or Sarah F. Moore, Residential Sector Lead, or your Energy Efficiency Representative.