

[Comments extracted from email and formatted for publication]

From: Jon Hill

To: windows@energystar.gov

Sent: February 24, 2015

Subject: Suggestions for Improving E* Wdws & Doors V7

Hello Doug,

Thank you for the opportunity to provide feedback in the development of the ENERGY STAR Product Specification for Windows, Doors & Skylights V7.

I submit the following in response to the first question in the Issues for Discussion Handout, Measurement & Verification Section – “How can EPA improve verification testing for fenestration products?”

If a NFRC certified fenestration product V-test specimen is properly configured as rated, the test results will validate, UNLESS:

- there was an error in the initial simulation OR
- there was an error in how the verification test was performed.

In either case, the E* Partner is not responsible for the failure!

The real goal is to determine if the manufacturer can produce and properly label the product as it was rated and qualified for E*, NOT whether the properly produced product test results will match the rated performance.

We can determine if the product is produced as rated by verifying the following production product details match the rated product details:

- frame & sash materials, profile geometry, presence & type of reinforcements and foam filling
- glazing system configuration, including glass thickness, IG spacer / sealant material, dimension & geometry
- gas fill percentage and the presence of “IG collapse”
- low e coating location, brand & model
- NFRC & ENERGY STAR labeling accuracy

All this can be accomplished at the manufacturing facility without the necessity for test specimen production, shipping & NFRC 102 testing. Further consider that the test cannot be a measure of product build quality as the NFRC 102 evaluates U factor with the product sealed with tape!

IVP costs are burdensome and serious barrier to E* Program participation by smaller fenestration manufacturers. The EPA can improve “verification testing” for fenestration

products by replacing the meaningless and expensive NFRC 102 test with a “verification analysis” that accomplishes the same goal at a significantly reduced cost to the manufacturer.

I welcome your comments and questions.

Jon Hill
President
Keystone Certifications, Inc.
564 Old York Rd, Suite 5
Etters, PA 17319
V: 717-932-8500
F: 717-932-8501