NFRC 700 PCP Process-Streamline TG

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Validation Simplification

**Scope of idea:** to develop a viable quality assurance process that eliminates the need for mandatory validation testing for recertification.
  
  - The process will be based on solid data-driven evidence and will allow for sufficient oversight to ensure that the integrity of NFRC certifications is maintained.

**Proposal:** replace NFRC recertification validation test with a product verification
  
  - Product line will be modeled as usual.
  - Physical sample will be sent to an accredited lab to be cut-up/disassembled and compared to the simulation option.
    
    - New process called a Component Evaluation
  - If the sample matches the simulation, product line is recertified
Validation Simplification

• Technical Procedure for Component Evaluation:
  o Procedure already exists for use in FenStar
    • FS-1100.02, *FenStar Verification Testing Procedure Laboratory Guidelines*
  o TG proposes importing this language into NFRC 102 as an addendum covering product recertification
  o Revisions to NFRC 100, 700 also required
Validation Simplification

• **Highlights of the Component Evaluation Procedure**
  o Cuts of frame and sash to show all the unique features of the product reflected in the simulations
  o The placement and orientation of any reinforcement inside the frame cavities are maintained
  o Profiles, reinforcements, foam filling, glazing etc. is compared to the product simulations
Validation Simplification

Next Steps:

- Schedule meeting of the Test Lab TG in October to discuss proposals for NFRC 100, 102, and create ballot language
- Ratings language changes to NFRC 700 will be proposed after the technical procedure is underway
- Changes to NFRC 701, 702 will be undertaken by the appropriate committees after membership accepts the new procedure

Contact: Jason Seals, Sheri Wendt, or Michelle Scism if you have any questions about the scope of this workgroup
Scaled Approach to Recertification

**Scope of idea:** To develop a scaled approach to quantify changes to a product line. When the product line exceeds the designated threshold then a full recertification will be required.

At the time of recertification (5 years under the current cycle) a product line shall be recertified using one of the following options:

1. Allow recertification by affidavit of no-change; simulations and physical unit not required
2. Allow recertification by sending in a physical test unit; simulations not required
3. Recertification by full simulation and validation/component evaluation; same as initial certification
Scaled Approach to Recertification

Workgroup Recommendation:

At the time of recertification (5 years under the current cycle) a product line shall be recertified using one of the following options:

1. Allow recertification by affidavit of no-change; simulations and physical unit not required
2. Allow recertification by sending in a physical test unit; simulations not required
3. Recertification by full simulation and validation/component evaluation; same as initial certification
1. Recertification by affidavit of no-change; simulations and physical unit not required

   • Allowed only if:
     o Revisions to the product line were limited to the glazing options
     o No significant changes to software, modeling procedures, certification procedures

   • Considerations:
     o Is the IA review sufficient?
     o Will labs need to be involved for this option?
     o Is this a feasible change in scope for IAs?
     o Is review of components sufficient or is there more value in evaluating an assembled product?
Scaled Approach to Recertification

2. Allow recertification by sending in a physical test unit; simulations not required

• Allowed only if:
  o Required if there are changes to the product which were not introduced in the current certification cycle (excluding glazing options)

• Physical test unit would be treated as a validation unit; either tested per NFRC 102 or cut up for validation
  • Validation unit must match original models and all documented changes

For products not eligible for Options 1 or 2 the existing program would apply
Scaled Approach to Recertification

Possible program additions:

• Adding a second in-plant inspection
  - Same requirement as the Air-Water-Structural and IGU certification programs

• Additional QMS requirements
  - Prioritizing inspection of products that have been extended during audits
  - Competence of personnel
  - Changes to the product
Scaled Approach to Recertification

Next steps:

Meet in October to prepare ballot language

Documents potentially needing revision:
- NFRC 700
- NFRC 100
- NFRC 200

Contact: Ryan Harnden or Michelle Scism if there are questions about the scope of this project