

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



Validation Simplification

- **Highlights of the Component Evaluation Procedure**
 - Cuts of frame and sash to show all the unique features of the product reflected in the simulations
 - The placement and orientation of any reinforcement inside the frame cavities are maintained
 - 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
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3. Recertification by full simulation and validation/component evaluation; same as initial certification



Scaled Approach to Recertification

1. Recertification by affidavit of no-change; simulations and physical unit not required
 - Allowed only if:
 - Revisions to the product line were limited to the glazing options
 - No significant changes to software, modeling procedures, certification procedures
 - Considerations:
 - Is the IA review sufficient?
 - Will labs need to be involved for this option?
 - Is this a feasible change in scope for IAs?
 - 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:
 - 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

