



National Fenestration Rating Council Incorporated

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NFRC Simulation Laboratory Application

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FOREWORD

The National Fenestration Rating Council, Incorporated ("NFRC") has developed and operates a uniform rating system for energy and energy-related performance of fenestration products. The Rating System determines the U-factor, Solar Heat Gain Coefficient (SHGC), and Visible Transmittance (VT) of a product, which are mandatory ratings for labeling NFRC certified products and are mandatory ratings for inclusion on label certificates, and are supplemented by procedures for voluntary ratings of products for Air Leakage (AL), and Condensation Resistance. Together, these rating procedures, as set forth in documents published by NFRC, are known as the NFRC Rating System.

The Rating System employs computer simulation and physical testing by NFRC-accredited laboratories to establish energy and related performance ratings for fenestration product types. The Rating System is reinforced by a certification program under which NFRC-licensed responsible parties claiming NFRC product certification shall label and certify fenestration products to indicate those energy and related performance ratings, provided the ratings are authorized for certification by an NFRC-licensed certification and Inspection Agency (IA).

The requirements of the rating, certification, and labeling program (the "Certification Program") are set forth in the most recent versions of the following as amended, updated or interpreted from time to time:

- NFRC 700 Product Certification Program (the "PCP")
- NFRC 705 Component Modeling Approach ("CMA") Product Certification Program (the "CMA-PCP").

Through the Certification Programs and the most recent versions of its companion programs as amended, updated or interpreted from time to time:

- The laboratory accreditation program (the "Accreditation Program"), set forth in the NFRC 701 Laboratory Accreditation Program (the "LAP")
- The IA licensing program (the "IA Program"), set forth in NFRC 702 Certification Agency Program (the "CAP")
- The CMA Approved Calculation Entity ("ACE") licensing program (the "ACE Program") as set forth in the NFRC 708 Calculation Entity Approval Program (the "CEAP"),

NFRC intends to ensure the integrity and uniformity of NFRC ratings, certification, and labeling by ensuring that responsible parties, testing and simulation laboratories, and IAs adhere to strict NFRC requirements.

In order to participate in the Certification Programs, a manufacturer / responsible party shall rate a product whose energy and energy-related performance characteristics are to be certified in accordance with mandatory NFRC rating procedures. At present, a manufacturer/responsible party may elect to rate products for U-factor, SHGC, VT, Air Leakage, Condensation Resistance, or any other procedure adopted by NFRC, and to include those ratings on the NFRC temporary label affixed to its products, or on the NFRC Label Certificate. U-factor, SHGC and VT, AL, and Condensation Resistance rating reports shall be obtained from a laboratory, which has been accredited by NFRC in accordance with the requirements of the NFRC 701.

The rating shall then be reviewed by an IA which has been licensed by NFRC in accordance with the requirements of the NFRC 702. NFRC-licensed IAs also review label format and content, conduct in-plant inspections for quality assurance in accordance with the requirements of the NFRC 702, and issue a product Certification Authorization Report (CAR), or approve for issuance an NFRC Label Certificate for site-built or CMA products and attachment products. The IA is also responsible for the investigation of potential violations (prohibited activities) as set forth in the NFRC 707 Compliance and Monitoring Program.

Ratings for products that are labeled with the NFRC Temporary and Permanent Label, or products that are listed on an NFRC Label Certificate, in accordance with NFRC requirements, are considered to be NFRC-certified. NFRC maintains a Certified Products Directory (CPD), listing product lines and individual products selected by the manufacturer/responsible party for which certification authorization has been granted.

NFRC manages the Rating System and regulates the Product Certification Program (PCP), Laboratory Accreditation Program (LAP) and Certification Agency Program (CAP) in accordance with the NFRC 700 (PCP), the NFRC 701 (LAP), the NFRC 702 (CAP), the NFRC 705 (CMA-PCP), and the NFRC 708 (CEAP) procedures, and conducts compliance activities under all these programs as well as the NFRC 707 Compliance and Monitoring Program (CAMP). NFRC continues to develop the Rating System and each of the programs.

NFRC owns all rights in and to each of the NFRC 700, NFRC 701, NFRC 702, NFRC 705, NFRC 707, NFRC 708 and each procedure, which is a component of the Rating System, as well as each of its registration marks, trade names, and other intellectual property.

The structure of the NFRC program and relationships among participants are shown in Figure 1, Figure 2, and Figure 3. For additional information on the roles of the IAs and laboratories and operation of the IA Program and Accreditation Program, see the NFRC 700 (PCP), NFRC 701 (LAP), and NFRC 702 (CAP) respectively.

Figure 1

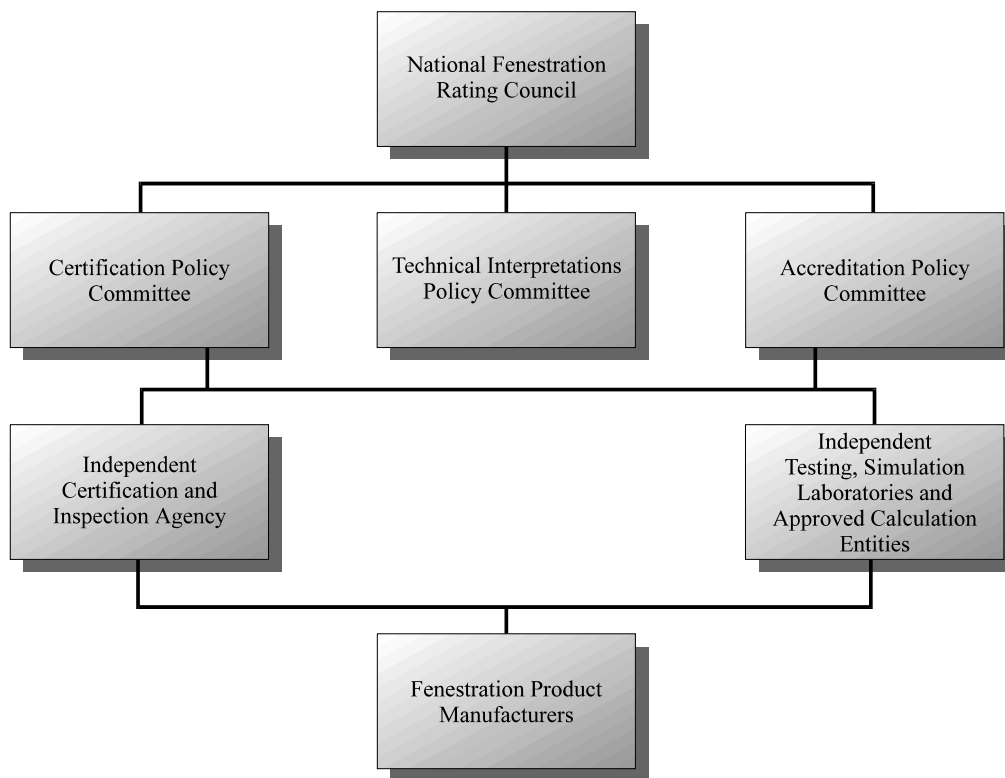


Figure 2

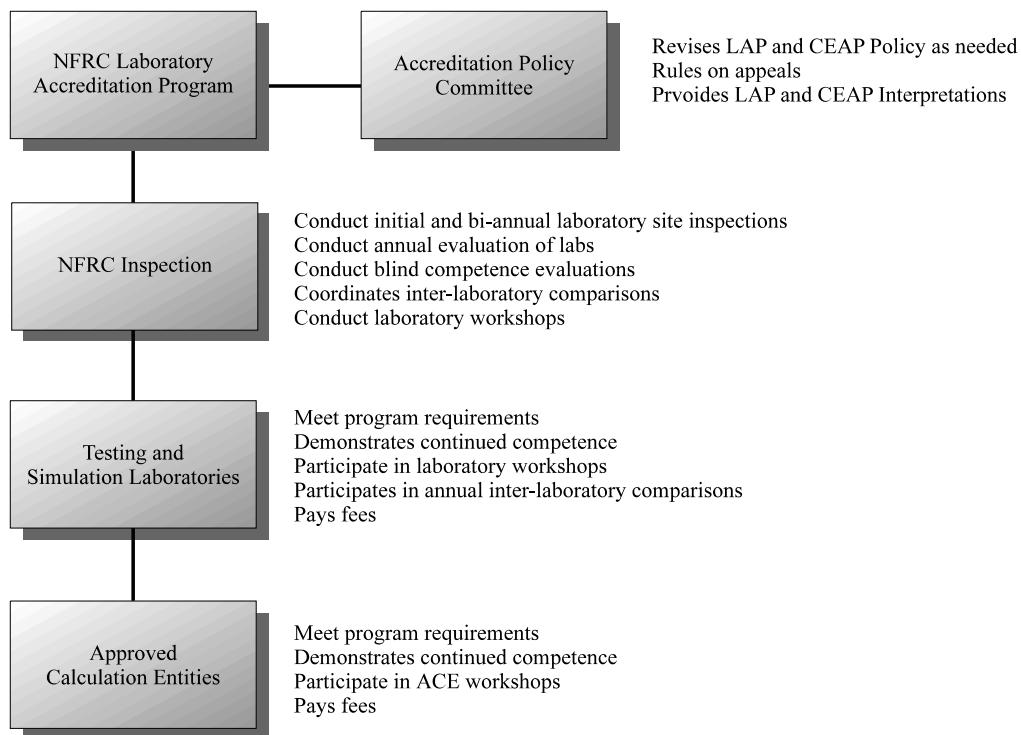
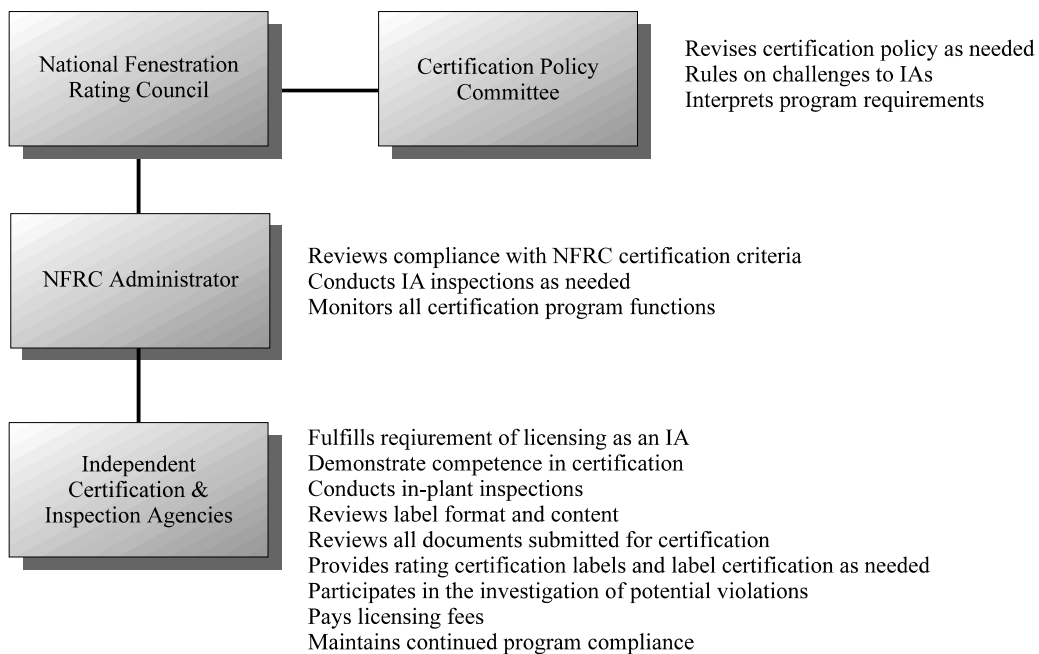


Figure 3



Questions on the use of this procedure should be addressed to:

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DISCLAIMER

NFRC certification is the authorized act of a manufacturer/responsible party in: (a) labeling a fenestration or related attachment product with an NFRC Permanent Label and NFRC Temporary Label, or (b) generating a site built or CMA label certificate, either of which bears one or more energy performance ratings reported by NFRC-accredited simulation and testing laboratories and authorized for certification by an NFRC-licensed IA. Each of these participants acts independently to report, authorize certification, and certify the energy-related ratings of fenestration and related attachment products.

NFRC does not certify a product and certification does not constitute a warranty of NFRC regarding any characteristic of a fenestration or fenestration-related attachment product. Certification is not an endorsement of or recommendation for any product or product line or any attribute of a product or product line. NFRC is not a merchant in the business of selling fenestration products or fenestration-related products, and therefore cannot warrant products as to their merchantability or fitness for a particular use.

NFRC THEREFORE DISCLAIMS ANY AND ALL LIABILITY THAT MAY ARISE FROM OR IN CONNECTION WITH SERVICES PROVIDED BY, DECISIONS MADE BY OR REPORTS OR CERTIFICATIONS ISSUED OR GRANTED BY ANY NFRC-ACCREDITED LABORATORY, NFRC-LICENSED IA OR ANY PRODUCT MANUFACTURER/ RESPONSIBLE PARTY; RELIANCE ON ANY NFRC PRODUCT DESCRIPTION, SPECIFICATION, RATING, TEST OR CERTIFICATION, WHETHER APPEARING IN A REPORT, A PRODUCT CERTIFICATION AUTHORIZATION OR A PRINTED OR ELECTRONIC DIRECTORY, OR ON A LABEL, OR ON A LABEL CERTIFICATE; OR THE SALE OR USE OF ANY NFRC-RATED OR CERTIFIED PRODUCT OR PRODUCT LINE; INCLUDING BUT NOT LIMITED TO DAMAGES FOR PERSONAL OR OTHER INJURY, LOST PROFITS, LOST SAVINGS OR OTHER CONSEQUENTIAL OR INCIDENTAL DAMAGES.

NFRC program participants are required to indemnify NFRC from and against such liability.



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NFRC LABORATORY ACCREDITATION PROGRAM



Simulation Laboratory Application

To ensure that a laboratory's application can be fully evaluated, all requested information should be provided. If additional space is needed, attach additional pages. Incomplete applications will be returned. Application processing takes approximately three weeks after receipt by NFRC of the completed application.

Organizational Information

1. Name of Laboratory: _____

2. Simulator(s) -in-Responsible Charge: _____

3. Address: _____

4. City: _____ State: _____ Zip Code: _____

5. Phone: _____ Fax: _____

Email address: _____

6. NFRC Trained Simulator(s): _____ Diploma Date: _____

7. Type of business: _____

- Corporation
- State of Incorporation: _____ Date of Incorporation: _____
- Partnership (attach list of general and limited partners)
- Sole Proprietorship - Name of Owner: _____
- Trade Association
- Other

8. Provide the Number of Staff (at each location) in your organization involved with:
- | | | | |
|--------------------|-------|-----------------------|-------|
| a. Administration: | _____ | d. Clerical: | _____ |
| b. Professional: | _____ | e. Other (Describe) : | _____ |
| c. Technician: | _____ | f. Total Staff: | _____ |

9. List other accreditation or product certification programs that your organization is licensed under or affiliated with:

10. Number of separate simulation laboratory facilities to be accredited: _____

11. If the location of your laboratory(ies) is different from your main business address, provide the following information for each laboratory:
- Name of laboratory
 - Location (address, city, state and zip codes)
 - Telephone & facsimile numbers, email address, and
 - NFRC Individual(s)-in-Responsible-Charge and their Title(s)

12. Attach a list of employees and an organizational chart showing the relationship of all employee positions to be involved in NFRC accredited simulations. On the organizational chart, please identify the incumbent in each position by name and title. If part of a larger corporate or similar structure, add a second chart showing the relative position of the applicant simulation laboratory (ies) within the corporation. On the organizational chart, identify the person(s) with responsibility for the following in the NFRC Accreditation Program:

- Company Policy
- Maintaining current job descriptions;
- Financial matters;

13. Briefly outline your objectives in becoming an accredited laboratory in the NFRC Accreditation Program.

Personnel

- 14. Provide resumes for each employee, both technical and administrative, to be involved in NFRC accredited computer simulations, including:
 - a. Professional qualifications (Degree, Professional Engineer License, etc.) ;
 - b. Relevant work experience;
 - c. Membership on relevant technical committees or professional societies; and
Employee's position at the laboratory and location of that laboratory or
 - d. laboratory space.

In-Service Training and Education Program

- 15. Summarize your employee in-service training and education program. Provide examples of relevant training courses. Describe your process of continuing education. (See requirements set forth in NFRC 701, Section 6.5)

Quality Control Program & Operations Manual

- 16. Describe your laboratory's Quality Control Program and how it will ensure efficient, uniform and repeatable results in accordance with Section 1.6 of NFRC 701.08.

- 17. Provide the name(s) of individuals in charge of your Quality Control Program at each laboratory location.

Name

Location

18. Describe the contents of your Simulation Operations Manual and Quality Control Manual (see NFRC 701.08, Sections 1.5 and 1.6). The NFRC Inspector will review such manuals during initial and on-site inspections, when deemed necessary.

19. Identify the staff responsible for preparing, reviewing and approving your Simulation Operations and Quality Control Manuals.

1. TERMS AND CONDITIONS

The undersigned officer or other duly authorized representative of the applicant laboratory accepts on behalf of the applicant the following terms and conditions:

- A. The laboratory hereby acknowledges receipt of a copy of, and agrees to abide by all conditions and requirements of the NFRC 701: Laboratory Accreditation Program and NFRC 700: Product Certification Program as these document may from time to time exist or be interpreted, including entering into a license agreement.
- B. The laboratory attests that the following conditions with respect to its independence are true and consistently maintained:
 - i. Neither Licensee, its equity owners, officers, directors, managers or employees, nor any affiliate of any such person:
 - a) Has any financial interest in, or family or organizational affiliation to any fenestration product or component manufacturer, supplier or vendor
 - b) Has any financial interest in, or family or organizational affiliation to, any firm for which any one of them provides NFRC-licensed certification services, nor does any such person serve as an equity owner, officer, director, manager or employee of any such firm
 - c) Advocates or recommends the use of any product (or product component) for which the laboratory provides NFRC testing or simulation services
 - d) Advocates or recommends the use of a particular thermal performance certification agency providing NFRC-licensed services
 - e) Is involved in the commercial design or fabrication of fenestration products or components other than performance of contracted simulation or tests.
- C. The laboratory represents and warrants that:
 - i. Neither the laboratory nor any controlling person of the laboratory has filed or had filed against it a petition under any bankruptcy law, or similar event, since 10 years from the first day of this calendar year (example: January 1, 1991).

- ii. Neither the laboratory nor any controlling person of the laboratory has during the previous 10 years been convicted in a criminal proceeding or is named as a defendant in a pending criminal proceeding (excluding traffic violations).
- iii. Neither the laboratory nor any controlling person of the laboratory has been during the previous 10 years or is now the subject of any judicial or administrative proceeding or investigation relating to its fenestration testing services.

If any of the foregoing statements is not applicable, please explain.

- A. The laboratory hereby agrees to promptly pay all fees and other expenses in accordance with NFRC 704.
- B. The laboratory hereby agrees to indemnify and hold harmless NFRC, its officers, directors, members, employees and agents from and against all liability whatever, including attorney's fees and expenses, arising from the decision by NFRC to grant, deny, suspend or revoke accreditation of the laboratory.
- C. If accreditation is granted by NFRC, the laboratory hereby agrees to indemnify and hold harmless NFRC, its officers, directors, members, employees and agents from and against all liability whatever, including attorney's fees and expenses arising from the laboratory's activities relating to simulation or rating products under the NFRC Certification Program.
- D. If accreditation is granted by NFRC, the laboratory hereby agrees that it shall be subject to and shall comply with the NFRC Compliance Assurance Program.

The undersigned certifies that the information supplied above is correct and will notify NFRC promptly of any change in any of the information supplied.

The undersigned acknowledge that any false statement in this application is a ground for denial, suspension or revocation of accreditation.

Organization: _____
By: (signature) _____
Print name: _____
Title: _____
Date: _____