



## **Documented Quality Control System Guide and description of minimum requirements.**

February 2017

This guide provides descriptions of the requirements for NFRC Licensee documented quality control system, per the NFRC 700, Section 8.2.

### 8.2.

- A. An NFRC Licensee shall establish and maintain a documented in-plant quality control system acceptable to the IA to assure accuracy and consistency as it relates to NFRC energy performance characteristics of rated products. The Licensee's quality control system is subject to IA approval for licensing and certification authorization and shall be reviewed by the IA at the time of each inspection.

*[The IA will conduct annual plant inspections at each manufacturing facility as set in the NFRC 700, Section 8.6, which will include the review of all documented quality control system documents including record of audits, methods, and required personnel.]*

- B. The documented in-plant quality control system shall contain the minimum following requirements:

i. Audit of incoming material

A process to ensure consistency with Manufacturer's specifications and drawings used for NFRC-certification, (e.g.: material types, wall thickness, profile dimensions, open cavities, stiffeners, and etc.)

*[Maintain a record of acceptance or disposition of non-conformance of incoming material.]*

ii. Audit of in-process material

A process to ensure consistency with Manufacturer's specifications and drawings used for NFRC-certification, (e.g.: weatherstripping, hardware, stiffeners, sealant applied to sash, and etc.)

*[Maintain a record of audits conducted on materials and components used to fabricate whole products to ensure consistency with the specifications to the Manufacturer's drawings used for NFRC-certification.]*

iii. Identify critical in-house inspection requirements including but not limited to the following periodic inspection of a fully assembled product:

- a) Proper labeling;

- b) Product is built in accordance with certification authorization.

*[A minimum number of finished product intended for NFRC-certification shall be examined on a set schedule as determined by the Licensee and shall meet the minimum requirements of the IA and is conducted by the quality control auditor at each manufacturing facility (see section 8.2.G). Maintain records of each quality control including review of the label applied to the unit and that it conforms to the current NFRC 700 labeling requirements for NFRC Permanent and Temporary labels; review of the product and that it is built per the specified requirements in the Manufacturer's drawings used for NFRC-certification.]*

- iv. Method for identifying, isolating, and disposition of material or products with non-conformities;

*[Maintain a method for handling non-conformities of incoming material, in-process material, and fully assembled products.]*

- v. Current organizational chart by position applicable to their NFRC License Agreement;

*[Minimum requirements for each Licensee's organizational chart shall include those positions identified in the NFRC 700 section 8.2: (E) quality control personnel for each Licensee; (F) supervise production personnel at each manufacturing facility; (G) quality control auditor personnel at each manufacturing facility.]*

- C. The Licensee's documented quality control system shall be kept current including all modifications and revision dates.

*[Acceptable methods of identifying modifications and revision dates can be per the following; addendums, revision logs, file names with dates.]*

- D. An NFRC Licensee shall establish, document, and maintain a quality system to ensure product conformance to the Licensee's specified design requirements. An NFRC Licensee shall retain all quality control records in Section 8.2.B for a minimum of five years.

*[Acceptable record keeping can be per the following: hard copy, electronically, online source.]*

- E. An NFRC Licensee shall designate properly trained and experienced personnel to ensure quality control; such duties include:

- i. Direction and maintenance of the Licensee's quality control system;
- ii. That production of the assembled product meets thermal performance ratings for which certification authorization has been granted;

- iii. Provide direction to ensure products are properly labeled as NFRC-certified;
- iv. The Licensee's quality control system shall identify this role.

*[This position is educated to the manufacturer's processes and oversees them to be carried through equally in each facility. The purpose of a designated personnel to ensure quality control of production of the assemble units is to verify that it is constructed with materials and components that equate to permanent and temporary label description and certified values.]*

- F. An NFRC Licensee shall designate properly trained and experienced personnel to supervise production at each manufacturing facility. The Licensee's quality control system shall identify this role.

*[This position is a separate role from the quality control for licensee position, but can be the same in some cases; this position will supervise production at an individual facility and that the requirements set in the Licensee's Quality Control System are being followed; and shall be properly trained to the NFRC certification/labeling requirements.]*

- G. An NFRC Licensee shall designate no less than one properly trained employee to the task of quality control auditor at each manufacturing facility. The Licensee's quality control auditor is responsible for

- v. Supervision of production to ensure products meet the thermal performance rating for which certification authorization has been granted;
- vi. Regular audits of NFRC-certified product so that there is correlation between the fully assembled product and what is described on the label; and
- vii. The Licensee's quality control system shall identify this role.

*[This position is a separate role from the production supervisor, and quality control position for the Licensee. But can be the same in some cases; this position is responsible for ensuring the products are produced in a manner to meet the thermal performance, regular audits are being conducted, and that labels are representative of the product they are affixed to.]*

- H. All quality control records shall be filed in a Licensee-designated central location, and shall be made available to the IA and to the Licensee's quality control auditor as needed.

*[A Licensee's QCS records must be in a central location at the licensee's designated location or at each facility; however copies of pertinent sections may be in various locations as needed throughout a facility.]*