



Green Squared[®] Certification Program Criteria



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PREFACE

Green Squared is the service mark for a tile and related installation material product certification program developed by the Tile Council of North America (TCNA) as part of its ongoing initiative to support the efforts of producers, purchasers and policy makers to improve the environmental and social sustainability of products and services, based on either established and/or advanced scientific principles, practices, materials and standards. It is a companion to the ANSI A138.1 American National Standard Specifications for Sustainable Ceramic Tiles, Glass Tiles and Tile Installation Materials.

The **Green Squared** certification program is intended to:

- Create and communicate a framework for product evaluation and certification in accordance with the principles of ISO Type 1 (ISO 14024) environmental labeling and declaration requirements.
- Establish the criteria to evaluate conformance to ANSI A138.1 American National Standard Specifications for Sustainable Ceramic Tiles, Glass Tiles and Tile Installation Materials.
- Engender confidence among the various stakeholders (manufacturers, suppliers, regulators, consumers, and others) that products labeled with the **Green Squared Certified** certification mark meet the requirements of this program.
- Serve as guidance to manufacturers seeking a better understanding of the general principles to follow when self-declaring conformance to ANSI A138.1. Note: Companies self-declaring their product(s) are in conformance with ANSI A138.1 are not authorized to use the **Green Squared Certified** certification mark.

TCNA provides and maintains the **Green Squared** certification program and develops (through the ANSI consensus process) standards to define and measure the sustainable attributes of tile and related installation material products. TCNA requires all products bearing the **Green Squared Certified** certification mark to be assessed for conformance to the ANSI A138.1 standard by a recognized third-party product certification body. Product certification bodies will certify that products conform to the standard and authorize the use of the **Green Squared Certified** certification mark in conjunction with the certified product.

Certification by a product certification body is not a statement that the product certification body guarantees the efficiency and performance of a product labeled with the **Green Squared Certified** certification mark. It is also not a guarantee that all of the aspects of the ANSI A138.1 standard are being met or will continue to be met, at all times. The certification and labeling of a product with the **Green Squared Certified** certification mark is a statement that the manufacturer's product of interest has been produced in accordance with the ANSI A138.1 standard, and that the validation and verification of conformance to the ANSI A138.1 standard has been evaluated and determined to meet the necessary requirements by a recognized third-party certification body.

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1 SCOPE

This document specifies the minimum requirements for third-party verification of product conformance to the ANSI A138.1 standard (**Green Squared Certification**) and for the right to use the **Green Squared Certified** certification mark. The following areas are addressed:

- Program structure, application requirements, participation requirements, and associated documentation requirements;
- Product groupings, product categories and other certification parameters;
- Minimum requirements for evaluating product conformance to ANSI A138.1 including site auditing, laboratory testing and associated documentation requirements; and
- Re-evaluation requirements.

2 TERMINOLOGY AND REFERENCED DOCUMENTS

2.1 Acronyms and Abbreviations

ANSI—American National Standards Institute
Elective CU—Elective Credit Unit
EPA—Environmental Protection Agency
LEED—Leadership in Energy and Environmental Design
LRV—Light Reflectance Value
IEC—International Electrotechnical Commission
ISO—International Standards Organization
SRI—Solar Reflectance Index
TCNA—Tile Council of North America
VOC—Volatile Organic Compound

2.2 Definitions

- 2.2.1 Certification Body – An independent, third party entity that operates pursuant to an established certification program and determines product conformance to an established specification.
- 2.2.2 Certifier – The representative(s) from the certification body which is responsible for performing the product conformance evaluation.
- 2.2.3 Product of Interest – The product or family of products to be evaluated as declared per Section 2.2 of ANSI A138.1.

2.3 Referenced Documents

ANSI A138.1 – American National Standard Specifications for Sustainable Ceramic Tiles, Glass Tiles and Tile Installation Materials

ISO 14024 – Environmental labels and declarations—Type I environmental labeling—Principles and procedures

ISO/IEC Guide 65 – General Requirements for Bodies Operating Product Certification Systems
Energy Audits – Best Practice Guide available at www.fypower.org

The Pennsylvania Department of Environmental Protection's Clean Fill Policy

EPA's TCLP Leaching Procedure

3 SIGNIFICANCE AND USE

3.1 Third-Party Certification Bodies.

This document is intended to be used by third-party certification bodies as the criteria for determining product conformance with the standard, ANSI A138.1, and for participation in the **Green Certified** certification program.

3.2 Manufacturers.

This document is intended to be used by manufacturers interested in participating in the **Green Squared** certification program to certify that their product(s) meet the requirements set forth in ANSI A138.1. It may also be used by manufacturers for guidance when self-declaring conformance with ANSI A138.1.

3.3 The General Public.

Green Squared certification is intended to be used by product specifiers, designers and purchasers seeking to ensure that finished products conform with the sustainability specifications set forth in ANSI A138.1.

4 APPROVAL OF CERTIFICATION BODIES

4.1 General.

TCNA shall consider for approval any applicant certification body meeting the requirements of the **Green Squared Service Mark and Certification Mark License Agreement**. Additionally, the certification body will promote **Green Squared** certification program awareness, maintain a web registry of labeled products, assist in monitoring usage of the **Green Squared Certified** certification mark, and notify TCNA regarding certified products.

4.2 Application to TCNA and License Agreement.

Certification bodies shall apply directly to TCNA to become recognized as a **Green Squared** third party certification provider. Once approved, TCNA and the certification body shall execute a licensing agreement authorizing the certification body to use the **Green Squared** service mark and award use of the **Green Squared Certified** certification mark in conjunction with a conforming product. The licensing agreement provides the conditions for authorizing the use of the **Green Squared Certified** certification mark by manufacturers for certified products. The **Green Squared** certification program website will include a listing of certification bodies authorized to evaluate products and apply the mark.

5 PRODUCT CERTIFICATION SCHEME

5.1 Application for Product Certification.

Manufacturers seeking to use the **Green Squared Certified** certification mark on their product(s) shall apply directly to a product certification body that is recognized by TCNA as a **Green Squared** certification provider. The application shall be made in a manner prescribed by the product certification body and shall document the manufacturer's identity, the product identity and help define the scope of certification. The application shall define the specific product of interest for which certification is requested by the manufacturer.

5.2 Certification.

5.2.1 General. The product certification body shall make necessary arrangements with the manufacturer for the certification in accordance with this document. The comprehensive review of objective evidence shall include an onsite evaluation.

5.2.2 Organization Evaluation. The product certification body shall conduct a comprehensive review of objective evidence to ensure conformance to the organizational requirements of the ANSI A138.1 standard for purposes of certification.

5.2.3 Facility Evaluation. The product certification body shall conduct a comprehensive review of objective evidence to ensure conformance to the facility related requirements of the ANSI A138.1 standard for purposes of certification.

5.2.4 Product Evaluation. The product certification body shall complete a comprehensive review of objective evidence to ensure conformance to the product related requirements of the ANSI A138.1 standard for purposes of certification.

5.2.5 Evaluation Report. The product certification body shall inform the manufacturer via a full report on the outcome of the evaluation. The report shall include confirmation that all relevant mandatory criteria were satisfied, the total number of elective credit units (CUs) accumulated by the product(s) of interest being evaluated, and the specific elective CUs achieved.

5.3 Confidentiality.

All proprietary information, including specifications, quality plans and test reports shall remain confidential between the certification body and the manufacturer through a mutually acceptable non-disclosure agreement unless the manufacturer authorizes the release or is otherwise compelled by law to release such information as non-confidential business information, for example, to an agent of a government authority.

5.4 Notification.

The manufacturer of a certified product shall notify its certification body which shall in turn notify TCNA of any changes which could affect conformance with the requirements of the **Green Squared** certification program. In particular, notification of design or production changes that could impact conformance of the certified product to ANSI A138.1 shall be provided

5.5 Certification Mark Authorization by Product Certification Body.

When the certification decision has been made, the product certification body shall provide a certification decision to the manufacturer and authorize the use of the **Green Squared Certified** certification mark in accordance with the **Green Squared** Service Mark and Certification Mark License Agreement and Section 5.8 of this document.

The certification body shall monitor that the manufacturers of products they have certified abide by the policies for using the **Green Squared Certified** certification mark.

TCNA reserves the right, for TCNA staff or agents acting on behalf of TCNA, to accompany the certification body on any routine or follow-up assessment of the manufacturer as it relates to usage of the **Green Squared Certified** certification mark or any other aspect of the **Green Squared** program.

5.6 Appeals.

Appeals shall be directed towards and managed by the certification body. TCNA reserves the right to review all issues appealed.

5.7 Extended Applicability.

Manufacturers shall apply directly to the certification body to obtain an extension of an existing certification for additional types or models of products. The product certification body, based on engineering judgment, shall determine if the additional types or models of products are significantly different than the products covered by the existing certification such that they cannot be grouped together or may not be in conformance with the requirements of the **Green**

Squared certification program. Based on this determination, the product certification body shall decide whether to require additional conformance evaluation.

5.8 Use of the Green Squared Certified Certification Mark and Green Squared Service Mark

5.8.1 The **Green Squared Certified** certification mark was created to differentiate products in the marketplace that meet the ANSI A138.1 standard and have been third party certified. A certification body authorized by TCNA to participate in the **Green Squared** certification program may award the use of the **Green Squared Certified** certification mark to a manufacturer once it is satisfied that the manufacturer is currently producing, and is capable of consistently producing a product in conformance with the requirements of the **Green Squared** certification program. The manufacturer, by applying the **Green Squared Certified** certification mark to a product, confirms that the product meets the requirements of the **Green Squared** certification program. TCNA may at its discretion vary the requirements of the **Green Squared** certification program as stated in Section 5.9 of this document.

5.8.2 The manufacturer shall have applied for and received approval from an authorized **Green Squared** certification body in order to use the **Green Squared Certified** certification mark. The mark may be used on product cartons and packaging or adhered directly to the product. The certification mark may never be used in connection with products that have not met the requirements of the **Green Squared** certification program, nor for products to which the A138.1 standard may not be applicable. The manufacturer of a certified product shall have the right to publish the fact that it has been authorized to apply the **Green Squared Certified** certification mark on products to which the certification applies. The certification mark may be used in promotional literature published about the product by the manufacturer as long as it is in direct correlation to the product. The **Green Squared Certified** certification mark must not be used to signify **Green Squared Certified** labeling of every product from the manufacturer and may never be used to imply direct endorsement of manufacturer or product by TCNA.

5.8.2.1 Color standards for the **Green Squared Certified** certification mark and **Green Squared** service mark. The logos may be rendered in color or in plain black. Where color logos are desired, colors shall be reproduced utilizing four-color process printing or shall utilize the following three specific Pantone® colors: Light Green, PMS 361; Dark Green, PMS 249; and Yellow, PMS 116 (yellow not applicable to service mark).

5.8.2.2 Sizing standards for the **Green Squared Certified** certification mark and **Green Squared** service mark. The logos may be in any size so long as the original aspect ratios are maintained.

5.8.2.3 The **Green Squared Certified** certification mark and **Green Squared** service mark shall be used in their entirety and as they appear in their original artwork. Under no circumstances shall the logos be cropped, truncated, flipped, outlined, or altered in any other way.

5.8.3 The certification body may provide to the manufacturer a unique identifier to be displayed in conjunction with the **Green Squared Certified** certification mark after prior written approval by TCNA. This identifier may be the product certification body's registered name, official acronym, or logo so long as it is legible, is not taller than half the height of the **Green Squared Certified** certification mark, does not obstruct any portion of the **Green Squared Certified** certification mark, and is preceded by the words, "VERIFIED BY". The identifier may be displayed in color so long as the color option for the **Green Squared Certified** certification mark is used, or it may be displayed in plain black so long as the plain black option for the **Green Squared Certified** certification mark is used. Examples of the color and plain black options for the **Green Squared Certified** certification mark are attached as Exhibit B to the **Green Squared** Service Mark and Certification Mark License Agreement.

5.8.4 TCNA will provide to the product certification body copies of the actual artwork that shall be used in conjunction with **Green Squared Certified** labeled products. The product certification body shall provide to the manufacturer of a certified product, the appropriate **Green Squared Certified** certification mark artwork and shall monitor that the manufacturer applies and uses the mark in accordance with the criteria established in Section 5.8.2 of this document. A manufacturer's usage of the **Green Squared Certified** certification mark or the certification body's unique identifier is voluntary.

5.8.5 The **Green Squared Certified** certification mark may be subjected to probationary use or withdrawn from a product if that product is found not to conform to the ANSI A138.1 standard and/or the requirements of the **Green Squared** certification program. Specifically, probationary use of the **Green Squared Certified** certification mark on a product will be determined by the certification body for product nonconformance identified during ongoing surveillance, improper use of the mark on products or promotional materials, or infringement of the certification requirements as described herein.

5.8.5.1 Probationary use of the **Green Squared Certified** certification mark will be rescinded once the areas of concern are corrected to the satisfaction of the certifying body. The **Green Squared Certified** certification mark will be withdrawn from a product for more severe or repeated instances of product nonconformance or misuse of the mark.

5.8.5.2 If the right to use the **Green Squared Certified** certification mark on a product is withdrawn for any reason, the manufacturer and its wholesalers, distributors, and retailers shall immediately cease to use the mark in conjunction with that product, and the mark shall be eliminated from product packaging/promotional materials.

5.8.6 The **Green Squared** service mark may be used only by certification bodies authorized by TCNA to participate in the **Green Squared** certification program or by their **Green Squared** certification clients. The service mark shall not at any time be used in conjunction with a product, and it shall only be used for the purposes of communicating about the **Green Squared** certification program, providing education through workshops, seminars and training relevant to

the program, and to promote the **Green Squared** certification program and certification services relevant to the program. An example of the **Green Squared** service mark is attached as Exhibit A to the **Green Squared** Service Mark and Certification Mark License Agreement. TCNA will provide authorized certification bodies with copies of the actual service mark artwork that they and their clients shall use.

5.8.7 The certification body shall assist TCNA in monitoring that the manufacturer(s) whose product(s) have been certified adhere to the policies outlined in this document. The certification body shall take appropriate action when a manufacturer of a product it has certified engages in unauthorized, incorrect, or misleading use of the **Green Squared Certified** certification mark or **Green Squared** service mark, whether it is discovered by the product certification body or is brought to its attention.

5.8.8 If a certification body is aware of any instance in which an entity with which it does not have a relationship is misusing the **Green Squared Certified** certification mark or **Green Squared** service mark, it shall notify TCNA and TCNA will engage in appropriate action with the infringing organization.

5.8.9 Where applicable, if an entity's misuse of the **Green Squared Certified** certification mark or **Green Squared** service mark is brought to TCNA's attention, TCNA will notify the certification body with which that entity has a relationship. The certification body will then engage in investigation and resolution of the complaint in accordance with ISO/IEC Guide 65 and the certification body's policies and procedures. If no certification body is associated with the entity engaging in mark misuse, TCNA will follow-up with the violating organization directly.

5.8.10 TCNA reserves the right to collect samples of materials containing **Green Squared** marks, including promotional materials. General misuse of the **Green Squared Certified** certification mark or **Green Squared** service mark or applying the **Green Squared Certified** certification mark to non-conforming products could invite prosecution under Trademark statutes or attract other penalty provisions in other applicable laws.

5.9 Changes to the Green Squared Certification Program.

If the requirements of the **Green Squared** certification program are amended or re-issued, a transition period for conformance to the revised requirements will be determined by TCNA, usually in consultation with relevant stakeholders. After the transition period, the manufacturer shall not apply the **Green Squared Certified** certification mark to any product covered by the **Green Squared** certification program until conformance of the product with the revised requirements has been verified by an approved certification body.

5.10 Certification Maintenance and Re-Certification Requirements

5.10.1 Surveillance. On an annual basis, the manufacturer of a certified product shall send to the certification body such information as it requires such that a surveillance audit can be made. The purpose of this audit shall be to verify that the manufacturer continues to operate in a manner that will maintain a product's conformance with ANSI A138.1. An on-site visitation may not be required and shall only be necessary in the events of non-conformance speculation, mark misuse or significant product characteristic or formulation alteration. The scope of the audit shall include:

- Evaluate proper use of **Green Squared** marks.
- Evaluate conformance to all applicable mandatory requirements in ANSI A138.1.
- Evaluate conformance to the applicable electives in ANSI A138.1.
- Consider changes to the manufacturer's operations and certified products that may impact a product's conformance with ANSI A138.1. If significant changes have not occurred, an onsite audit is not required.

5.10.2 Re-Certification. Every three years, certified products shall be resubmitted for certification.

6 GUIDANCE ON CERTIFYING CONFORMANCE WITH ANSI A138.1

The information provided herein shall be utilized in conjunction with ANSI A138.1. Refer back to the ANSI A138.1 document for details and specific criteria within the standard.

6.1 Preliminary Description Of ANSI A138.1 Scoring and Conformance

6.2 Certifiable Products

Products eligible for **Green Squared** certification include ceramic tiles, glass tiles, and tile installation materials. For the purposes of **Green Squared** certification, "ceramic tiles" includes mosaic, quarry, pressed floor, glazed wall, porcelain, and specialty tiles. "Glass tiles" includes cast glass, fused glass, and low-temperature coated glass tiles. "Tile installation materials" includes mortar adhesives, mastic adhesives, reactive resin adhesives, grouts, tile backer units, crack isolation membranes, waterproofing membranes, water containment membranes, and sound reduction membranes.

As a prerequisite for conformance with ANSI A138.1, the product of interest shall be in conformance with its relevant industry performance standard. Thus, only products which are within the scope of at least one of the relevant industry standards outlined in section 3.4 of ANSI A138.1 shall be considered for **Green Squared** certification.

6.3 Certification Groupings.

Based on engineering judgment and under determination of the product certification body, it is possible for products with varying SKUs which are manufactured by the same process and/or within the same series or product line to be grouped together under a single certification.

This shall not be permitted for product types within the series which are sufficiently different from the other products being certified such that conformance with ANSI A138.1 may be impacted. For example, varying colors of raw materials which make up a major percentage of the product may have an impact on recycled and/or reclaimed content levels.

Additionally, specialty environmental products targeting a conformance path which is different from other products within the same series or product line are not permitted to be considered under the same certification. For example, if a product's conformance to ANSI A138.1 is based heavily on a product's high SRI and LRV values, the same certification shall not be applicable to darker colored products within the same series or product line.

All of the products of interest under a single certification must meet the minimum credits required for its target assessment category. All engineering judgments for product certification groupings must be documented and available for peer-review by a technically competent person.

6.4 Certification Requirements for Environmental Product Characteristics.

Section 3.0 in ANSI A138.1 evaluates environmental attributes of the product of interest itself. In addition to containing 5 mandatory requirements, or prerequisites, Section 3.0 contains 17 electives which are worth up to 18 elective CUs. Only those mandatory requirements which are practically relevant to the product of interest being evaluated shall suffice as a prerequisite for conformance. By default, if a mandatory requirement is found to be irrelevant to a product of interest, that requirement may be checked-off in the ANSI A138.1 Scoring Tool.

Refer to Annex A of this document for criteria interpretation strategies and conformance certification requirements associated with ANSI A138.1 Section 3.0 Environmental Product Characteristics.

6.5 Certification Requirements for Environmental Product Manufacturing and Raw Material Extraction.

Section 4.0 in ANSI A138.1 evaluates manufacturing operations and facilities associated with the product of interest. In addition to containing 13 mandatory requirements, or prerequisites, Section 4.0 contains 17 electives which are worth up to 18 elective CUs. Only those mandatory requirements which are practically relevant to the product of interest being evaluated shall suffice as a prerequisite for conformance. By default, if a mandatory requirement is found to be

irrelevant to a product of interest, that requirement may be checked-off in the ANSI A138.1 Scoring Tool.

Refer to Annex B of this document for criteria interpretation strategies and conformance certification requirements associated with ANSI A138.1 Section 4.0 Environmental Product Manufacturing.

6.6 Certification Requirements for End of Product Life Management.

Section 5.0 in ANSI A138.1 evaluates end of life characteristics of the product of interest itself and the availability of manufacturer post-life collection opportunities. Section 5.0 contains no mandatory requirements, or prerequisites, but contains 2 electives which are worth up to 2 elective CUs.

Refer to Annex C of this document for criteria interpretation strategies and conformance certification requirements associated with ANSI A138.1 Section 5.0 End of Product Life Management.

6.7 Certification Requirements for Progressive Corporate Governance.

Section 6.0 in ANSI A138.1 evaluates social responsibilities of the company which manufactures and affiliates itself with the product of interest. In addition to containing 8 mandatory requirements, or prerequisites, Section 6.0 contains 5 electives which are worth up to 5 elective CUs. All mandatory requirements in this section shall be considered relevant to all products of interest being evaluated and shall suffice as prerequisites for conformance.

Refer to Annex D of this document for criteria interpretation strategies and conformance certification requirements associated with ANSI A138.1 Section 6.0 Progressive Corporate Governance.

6.8 Certification Requirements for Innovation.

Section 7.0 in ANSI A138.1 evaluates innovation associated with the product of interest or the company which manufactures and affiliates itself with the product of interest. Section 7.0 contains no mandatory requirements, or prerequisites, but contains 4 electives which are worth up to 4 elective CUs.

Refer to Annex E of this document for criteria interpretation strategies and conformance certification requirements associated with ANSI A138.1 Section 7.0 Innovation.

6.9 Determination of Conformance.

A product of interest shall be considered in conformance with ANSI A138.1 and eligible for **Green Squared** certification if all relevant mandatory criteria are satisfied and if the number of

elective CUs earned exceeds the required threshold established for each product type in Section 8.0 in ANSI A138.1.

The certification body shall utilize the scoring tool provided in Appendix A of ANSI A138.1 to record criteria that are satisfied and to determine the CU value for each elective criterion.

Annex A
-General Environmental Product Characteristics-

**ANSI A138.1 Criteria Interpretation Strategies and
Conformance Certification Requirements**

For ease of reference, the following descriptions are organized such that the numbering sequences which follow "A" are consistent with ANSI A138.1.

A.3.1 Recycled or Reclaimed Content.

As a prerequisite for conformance with ANSI A138.1, the criteria for Level 1 Recycled/Reclaimed Content shall be met. Additionally, an elective CU may be rewarded if the Level 2 criteria are met, and a second elective CU may be rewarded if the Level 3 criteria are met.

Each product type (ceramic tile, glass tile, powdered installation goods, panel installation goods, etc.) has its own Recycled/Reclaimed content percentage criteria. Note that some rolled sheet goods may have zero Recycled/Reclaimed content due to other industry standards requiring 100% virgin materials, and by default, such products of interest shall be considered in conformance with the mandatory criteria outlined in ANSI A138.1 section 3.1.

The manufacturer of the product of interest shall make available for review formulas or recipes for each SKU within the product series being certified demonstrating Recycled/Reclaimed content levels which are met. To ensure that there are no significant changes to formulas or recipes over time, the manufacturer shall maintain batch data for at least 10% of production of the product(s) of interest for 5 years.

If a product of interest meets targeted Recycled /Reclaimed content levels primarily through pre-consumer and post-consumer recycled content, existing recycled content certification shall suffice in lieu of formulas or recipes so long as the certification is current.

If asked by the certification body, the manufacturer shall be prepared to demonstrate mechanisms for recycling and waste reclamation within the factory.

A.3.2 Indigenous Raw Materials.

An elective CU may be rewarded if the Level 1 criteria are met for indigenous raw materials. Additionally, a second elective CU may be rewarded if the Level 2 criteria are met, and a third elective CU if the Level 3 criteria are met.

The manufacturer shall provide formulas or recipes for each SKU within the product series being certified demonstrating the indigenous raw material content levels which are met. Additionally, the manufacturer shall maintain an organized list of addresses of raw material

suppliers for each SKU within the product series being certified. The manufacturer shall provide information on transportation modes and other relevant shipping logistics.

A.3.3 Packaging.

As a prerequisite for conformance with ANSI A138.1, the criteria of at least one of the packaging electives shall be met. In doing so, at least one elective CU is automatically obtained.

A.3.3.1 Mandatory requirement—satisfaction of the criteria for at least one of the five packaging elective options. The manufacturer shall clearly indicate (verbal indication is acceptable) to the certifier which packaging elective option is being sought.

A.3.3.2 Packaging elective option 1—minimal packaging. The manufacturer shall provide the certifier with documented calculations demonstrating package weight values which are within the tolerances expressed for each product type in ANSI A138.1. For the product series being certified, the documentation shall contain weight calculations for each SKU within that series.

A.3.3.3 Packaging elective option 2—recyclable packaging. The manufacturer shall provide the certifier with documented calculations demonstrating that the required percentage of packaging material is recyclable. Additionally, the manufacturer shall demonstrate, either through physical display or by a PDF drawing of the actual packaging, that the appropriate recycling classification mark is printed on the packaging. Ensure that markings are in conformance with the FTC Green Guides and that they follow other classification and general recyclability communication guidelines such as those developed by the Corrugated Packaging Council (CPC), Glass Packaging Institute (GPI), and the Society of the Plastics Industry (SPI).

A.3.3.4 Packaging elective option 3—on-site reusable packaging. The manufacturer shall demonstrate, either through physical display or by a PDF drawing of the actual packaging, that drawings or descriptions of onsite reuse possibilities are printed on the packaging. In general, any creative idea for onsite reuse shall suffice although the certifier shall exercise good faith judgment on the legitimacy of the idea.

A.3.3.5 Packaging elective option 4—biodegradable packaging. The manufacturer shall provide the certifier with documentation from the packaging material supplier which states that the packaging is in conformance with the relevant biodegradability standards.

A.3.3.6 Packaging elective option 5—packaging with recycled content. The manufacturer shall provide the certifier with a letter from the packaging material supplier which claims recycled content level of that material.

A.3.4 Product Durability/Conformance with Industry Standards.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer shall demonstrate to the certifier that the product of interest is in conformance with its relevant industry standard.

A standard for each product type is referenced in ANSI A138.1. The certifier shall review lab reports and other necessary documentation associated with the product of interest and its research and development history. Additionally, proof of an ongoing quality assurance program for continued conformance with relevant product standards shall be demonstrated to the certifier.

Lab reports reviewed are not required to originate from an ISO 17025 accredited laboratory. However, within the time period that a product of interest's certification is active, the certifier shall be permitted to randomly select products as deemed necessary by the certifier for testing to industry standards using TCNA's Product Performance Testing Laboratory for verification.

A.3.5 Product Emissions Criteria.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied.

If a tile manufacturer provides written documentation that the tile of interest has no post-fire adhesive, wax, or organic coating, no other testing or documentation is required. For tiles with post-fire coatings and for tile installation products, the manufacturer shall provide test reports or certification documentation verifying that the product of interest is within the emission limits specified by CA 01350.

A manufacturer of a powder or liquid/paste installation product may alternatively be in conformance with this mandatory criterion by demonstrating conformance with the VOC content criteria outlined by SCAQMD Rule 1168. If such is the case, the manufacturer shall demonstrate to the certifier, either through physical display or by a PDF drawing of the actual packaging, self certification of conformance with Rule 1168 as declared on the product of interest's bag or container.

A.3.6 Cleaning/Environmental Maintenance Guidelines.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer of the product of interest shall provide the certifier with documentation which is routinely distributed to consumers containing a comprehensive set of maintenance instructions for the product of interest. As per 6.4 of this document, this requirement shall not be considered a prerequisite for non-applicable products (those which the consumer would not typically be expected to service).

A.3.7 Additional Environmental Characteristics.

There are situations where certain attributes of a product of interest may be desired for indoor or outdoor environmental contribution. A product of interest aiming to satisfy such needs may achieve an elective CU for conformance with each of the following criteria.

A.3.7.1 High solar reflectance index (SRI)—an elective CU may be rewarded to a tile if it has an SRI value greater than or equal to 29. Additionally, a second CU may be rewarded for an SRI value greater than or equal to 78. Such values are commonly demanded of exterior surfacing products (29 and higher for hardscapes and steep-sloped roofs; 78 and higher for low-sloped roofs) to help minimize a development's thermal absorption and contribution to urban "heat island effect."

To receive a first or second elective CU for high SRI, the manufacturer shall provide the certifier with documentation and/or test reports demonstrating that SRI testing was performed in accordance with ASTM E1980 and that the product of interest's SRI value is greater than or equal to each of the thresholds specified in this section.

A.3.7.2 High light reflectance value (LRV)—an elective CU may be rewarded to a tile or grout product if it has an LRV greater than or equal to 70%. High LRVs are commonly demanded of interior surfacing products to increase ambient brightness and reduce energy consumption associated with lighting. High LRVs may also be required for the purposes of health and safety of building occupants.

To receive an elective CU for high LRV, the manufacturer shall provide the certifier with documentation and/or test reports demonstrating that a tile or cured grout product was tested in accordance with ASTM C609 and that the product of interest's LRV is greater than or equal to the threshold specified in this section.

A.3.7.3 Sound abatement characteristics—an elective CU may be rewarded to an installation material product if it has a Δ IIC value greater than or equal to 10 when tested per ASTM E2179. Sound abatement/reduction/isolation is commonly demanded of an interior floor, wall or ceiling system to improve indoor environmental quality for building occupants.

Impact sound frequencies from a standard tapping machine meeting the requirements of ASTM E492 shall be transmitted from one room to the room below and measured both with and without the product of interest as a component in the floor covering system. To receive an elective CU, the manufacturer shall provide the certifier with documentation and/or test reports demonstrating that an improvement in impact insulation class due to the floor covering system, Δ IIC, is greater than or equal to 10 when calculated per section 13.4 of ASTM E2179.

Note: ANSI A118.13 Section 5.3.8, ASTM E2179, and ASTM E492 may be referenced in conjunction with one another for more information on the specifics of the testing assembly.

A.3.8 Participation in Life Cycle Evaluation Initiatives.

In general, there is an increasing demand to compare the sustainability of products based on evaluation of their environmental impacts throughout all life cycle phases. While there are international standards for life cycle evaluations, they are fairly new and such evaluations are not yet engrained into today's culture. In the spirit of expanding initiatives and to encourage the growth of familiarity with life cycle evaluation procedures, several elective CUs are available for products of interest in conformance with the following criteria, regardless of life cycle evaluation outcomes.

A.3.8.1 ISO 14040/14044 Life Cycle Assessment (LCA)—two elective CUs may be rewarded if an LCA report is written for the product of interest or its pertinent product line or series. The certifier shall be provided with an LCA report, conducted by a 3rd party agency or in-house with a well-known LCA tool (e.g. SimaPro, Athena EIE, US EPA TRACI, etc.), which was conducted in conformance with the requirements of ISO 14040/14044.

A.3.8.2 ISO 14025 Environmental Product Declaration (EPD)—an additional elective CU may be rewarded if an EPD is made for the product of interest or its pertinent product line or series. The certifier shall be provided with an EPD conducted in conformance with ISO 14025. This EPD shall utilize LCA findings and shall be administered by an EPD Program Operator which is in conformance with section 6.3 of ISO 14025 and which follows an established set of Product Category Rules (PCRs).

A.3.8.3 Contribution to LCA software modules and general Life Cycle Inventory (LCI) Database Project participation—an elective CU may be rewarded to a product of interest if it is included in Building for Economic and Environmental Sustainability (BEES), which is an end user LCA tool managed by the National Institute of Standards and Technology (NIST). Such inclusion could expand the number of tile industry products available to end users for comparison and evaluation. Such inclusion could also indirectly contribute to the US LCI Database Project. The certifier shall be shown a BEES database listing for the product of interest or pertinent product line or series.

Annex B
-Environmental Product Manufacturing-

**ANSI A138.1 Criteria Interpretation Strategies and
Conformance Certification Requirements**

For ease of reference, the following descriptions are organized such that the numbering sequences which follow "B" are consistent with ANSI A138.1.

B.4.1 Pollution Prevention to Reduce Particulates.

B.4.1.1 Visible emissions from buildings containing process equipment— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. U.S. manufacturers shall provide the certifier with Title V documentation, or such other documentation, as required by the local EPA pollution control agency to show compliance with this requirement. Non-U.S. manufacturers shall undergo EPA Method 22 for all buildings associated with the manufacture of the product of interest which contain process equipment, and a test report indicating that no visible particulate emissions are allowed shall be provided to the certifier.

B.4.1.2 Buildings with process equipment which control particulate emissions— as a prerequisite for conformance with ANSI A138.1, it is mandatory that all facilities controlling particulate emissions from process equipment which are associated with the manufacture of the product of interest have pollution control equipment such that all PM emissions are less than or equal to 0.05 grams per dry standard cubic meter (g/dscm) for all dust collection systems.

An elective CU may be rewarded to a product of interest if all PM emissions are less than or equal to 0.032 g/dscm for 50% (by unit) of its dust collection systems. A second elective CU may be rewarded if all PM emissions are less than or equal to 0.01 g/dscm for 25% (by unit) of its dust collection systems. A third elective CU may be rewarded if all PM emissions are less than or equal to 0.005 g/dscm for 10% (by unit) of its dust collection systems.

To be in conformance with the mandatory criterion and to achieve each of the above elective CUs, the manufacturer shall provide the certifier with stack testing results which demonstrate compliance with the above PM emission criteria. Additionally, the manufacturer shall provide the certifier with a performance guarantee from the dust collection system or filter manufacturer. Where stack testing results are not available (i.e. smaller operations), the guarantee alone shall suffice. Also, the manufacturer shall physically demonstrate or provide documentation that each pertinent unit percentage target is met.

B.4.2 Combustion and Fuel Usage.

B.4.2.1 Fuel restrictions— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer shall provide the certifier with gas bill(s) associated with all combustion units used in the manufacture of the product of interest to ensure that only allowed fuel types are used: natural gas, LP gas (butane and propane), landfill generated methane, or bio-based fuel.

B.4.2.2 Landfill generated methane—an elective CU may be rewarded to a product of interest if landfill generated methane is used as fuel in one or more production related combustion units. The manufacturer shall provide the certifier with documentation or proof of purchase which indicates such usage.

B.4.2.3 Bio-based fuel— an elective CU may be rewarded to a product of interest if bio-based fuel is used in one or more production related combustion units. The manufacturer shall provide the certifier with documentation or proof of purchase which indicates such usage.

B.4.2.4 Low NOx Burners— an elective CU may be rewarded to a product of interest if Low NOx burners are installed on at least 50% (by unit) of natural gas or LP gas (butane and propane) production related combustion units. The manufacturer shall provide the certifier with product specifications and/or statements from burner manufacturer and shall physically demonstrate or provide documentation that the 50% target is met.

B.4.2.5 Acid gas controls—an elective CU may be rewarded if acid gas controls are used on all kilns associated with the manufacture the product of interest. The manufacturer shall provide the certifier with documentation indicating the use of such controls.

B.4.3 Raw Materials Sourcing.

B.4.3.1 Written procurement policy. As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall be provided with the manufacturer's written procurement policy for immediate raw material suppliers addressing social issues, environmental issues, and applicable requirements for mining laws. The specifics of this policy are not outlined by ANSI A138.1, and there may be variation in the thoroughness of different manufacturers' policies so long as they address the key points mentioned above.

B.4.3.2 Written vendor buying agreement—an elective CU may be rewarded if a manufacturer has a written vendor buying agreement with immediate suppliers of raw materials which make up an aggregate of 90% (by weight) of the finished product of interest. At minimum, the vendor buying agreement shall address items 6.2 through 6.6 of ANSI A138.1 and shall contain a written declaration of conformance with all applicable mining and reclamation laws. The manufacturer shall provide the certifier with signed copies of all agreements, shall provide documentation with calculations used to figure the 90% in aggregate of raw materials, and shall provide a checklist for each supplier with which an agreement is made.

B.4.3.3 List of material inputs—as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer shall maintain lists of all raw material inputs associated with a product of interest. These lists shall contain raw material names, ingredient(s), and ingredient percentages as listed in the Material Safety Data Sheet (MSDS). The manufacturer shall be prepared to show these lists and evidence of up-to-date record keeping to the certifier.

B.4.4 Outsourced Manufacturing and Packaging Services.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. If outsourced manufacturing and/or packaging services are used, the primary manufacturer of the product of interest shall provide certification that each immediate outsourced service provider has a policy in place (available to the primary manufacturer if requested) which addresses social and environmental issues. At minimum, this policy shall address items 6.2 through 6.6 of ANSI A138.1.

B.4.5 Restricted Leachability of Lead and Cadmium.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. Any product of interest with glazed surfaces which include lead and/or cadmium in their MSDS shall undergo leachability testing in accordance with ASTM C738 or ASTM C895. The manufacturer shall provide the certifier with a test report for each applicable SKU within the product line or series being certified. This report shall indicate that lead and/or cadmium in the glazed surface(s) are non-leachable, meaning that they do not exceed specified leaching limits in ASTM C738 if tested per ASTM C738 or that they are below detectable leaching limits (typically 0.010 mg/L for cadmium and 0.050 mg/L for lead) if tested per ASTM C895. For any product of interest with glazed surfaces which do not include lead and/or cadmium in their MSDS, the manufacturer shall provide the certifier with a statement that lead and cadmium are not present.

B.4.6 Environmental Management Plan (Referred to Herein as EMP).

B.4.6.1 Documented EMP— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer shall provide the certifier with documentation, past reports, and a general plan for continued compliance with environmental regulations. In addition to an explanation of the manufacturer's general commitment to environmental improvement and pollution prevention, this plan must address sections 4.7.1 through 4.7.4, and 4.9.1 in ANSI A138.1.

B.4.6.2 Registered Environmental Management System (EMS) — two elective CUs may be rewarded if the manufacturer has an EMS in place which is registered with a 3rd party certifier. The manufacturer shall be able to produce official documentation (e.g. certificate) indicating conformance with ISO 14001 or Industria Limpia (for Mexican manufacturers).

B.4.7 Conservation/Reduction of Utility Usage

B.4.7.1 Lighting audit— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that a lighting energy conservation strategy based on an audit of the facility is incorporated into the manufacturer's EMP. The manufacturer shall be able to provide lighting audit results as an attachment to this strategy.

B.4.7.2 Heating fuel audit— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that a heating fuel conservation strategy based on an audit of the facility is incorporated into the manufacturer's EMP. The manufacturer shall be able to provide heating fuel audit results as an attachment to this strategy.

B.4.7.3 Electrical audit— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that an electricity conservation strategy based on an audit of the facility is incorporated into the manufacturer's EMP. The manufacturer shall be able to provide electrical audit results as an attachment to this strategy.

B.4.7.4 Production water conservation mechanisms—as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that a production water conservation strategy is incorporated into the manufacturer's EMP. The manufacturer shall be able to demonstrate to the certifier mechanisms for water conservation.

B.4.7.5 Minimal wastewater discharge—an elective CU may be rewarded if the manufacturer is able to show calculations and/or documentation demonstrating that production wastewater discharge (defined in ANSI A138.1) to POTW is less than or equal to 20% annually of the total production water utilized.

B.4.7.6 ASHRAE audit— an elective CU may be rewarded if the manufacturer voluntarily participates in an ASHRAE energy audit once every five years. The manufacturer shall be able to provide the certifier with auditing results in the form of a report dated within the previous 5 years. (See www.fypower.org for more information.)

B.4.7.7 Cogeneration or combined heat and power systems— an elective CU may be rewarded if the manufacturer utilizes cogeneration or combined heat and power systems to generate electricity and/or useful heat in at least one process equipment unit. The manufacturer shall demonstrate, either physically or through process flow charts, how cogeneration or combined heat and power systems are incorporated into the facility where the product of interest was manufactured.

B.4.7.8 Heat recovery systems— an elective CU may be rewarded if the manufacturer utilizes heat recovery systems in the facility where the product of interest was manufactured. The manufacturer shall provide the certifier with a calculation and/or documentation demonstrating that 30% (by unit) of its primary fuel consuming production equipment utilize such systems.

Additionally, the manufacturer shall demonstrate, either physically or through process flow charts, how heat recovery systems are incorporated into the facility.

B.4.8 Renewable Energy Usage.

An elective CU may be rewarded if the manufacturer can show proof of purchase of renewable energy or provide evidence that renewable energy which is created either onsite or offsite is used. The manufacturer shall provide a calculation and/or documentation proving that 10% of the electric energy used or 10% of the gas energy used (based on consumption) in the facility, manufacturing line or manufacturing processes associated with the product of interest is renewable. A combination of the two may also be used provided that the percentage of electric energy used which is renewable plus the percentage of gas energy used which is renewable is at least 10.

B.4.9 Manufacturer Waste Diversion/Minimization

B.4.9.1 Waste minimization plan— as a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that a waste minimization strategy is incorporated into the manufacturer's EMP. The manufacturer shall be able to demonstrate and/or provide flow charts, records, or other documentation indicating that the waste minimization plan is implemented.

B.4.9.2 Reuse of manufacturing waste or scrap for other products or projects—an elective CU may be rewarded if the manufacture reuses manufacturing waste or scrap on an on-going basis. The manufacturer shall provide the certifier with records of how their manufacturing waste or scrap is being incorporated into products made by other manufacturers or into state-approved beneficial reuse projects. The certifier shall be allowed to exercise judgment as to whether such reuse can be legitimately considered "on-going."

B.4.9.3 Offer for donation in lieu of disposal—an elective CU may be rewarded if the manufacturer offers to charitable or other organizations functional finished products that would otherwise be disposed of. The manufacturer shall provide the certifier with copies of letters to charities or other recipients which demonstrate that 100% of its functional finished products en route for disposal are available for donation.

B.4.9.4 Incoming shipping material recycling or reuse—an elective CU may be rewarded if the manufacturer has mechanisms in place to reuse or recycle incoming shipping materials in the facility where the product of interest was manufactured. The manufacturer shall provide the certifier with a calculation and/or physical demonstration which proves that approximately 50% of incoming shipping materials (by weight, volume, or item) are reused or recycled.

Annex C
-End of Product Life Management-

**ANSI A138.1 Criteria Interpretation Strategies and
Conformance Certification Requirements**

For ease of reference, the following descriptions are organized such that the numbering sequences which follow "C" are consistent with ANSI A138.1.

C.5.1 Clean fill eligibility.

An elective CU may be rewarded if the product of interest is solid and inert, as per the Clean Fill Policies of the appropriate jurisdictional authorities, upon departure from the factory gate. For example, the manufacturer can provide the certifier with a report which states that testing of the product of interest was performed in accordance with the EPA's TCLP leaching procedure and that thresholds for nonhazardous materials were met or if they are in compliance with a local Clean Fill Policy already in place (e.g. The Pennsylvania Department of Environmental Protection's Clean Fill Policy).

C.5.2 Post-life collection plan availability.

An elective CU may be rewarded if the manufacturer offers an end of life collection program which can be applicable to the product of interest. The manufacturer shall provide the certifier with documentation which details the program and shall provide evidence of implementation and action. This documentation shall demonstrate that materials are being taken back to be recycled.

Annex D
-Progressive Corporate Governance-

**ANSI A138.1 Criteria Interpretation Strategies and
Conformance Certification Requirements**

For ease of reference, the following descriptions are organized such that the numbering sequences which follow "D" are consistent with ANSI A138.1.

D.6.1 Social Responsibility Strategy.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer of the product of interest shall provide the certifier with a document which outlines its social responsibility strategy. At minimum, sections 6.2 through 6.6 in ANSI A138.1 in addition to a general plan (strategy) for community involvement shall be addressed.

D.6.2 Labor Law Compliance.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that labor law abidance is addressed in the manufacturer's social responsibility strategy. Additionally, the manufacturer shall provide the certifier with a signed declaration of compliance with applicable labor laws as verified per reasonable inquiry.

D.6.3 Forced Labor Prohibitions.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that forced labor prohibition is addressed in the manufacturer's social responsibility strategy. Additionally, the manufacturer shall provide the certifier with written confirmation that they do not engage in or permit the use of forced or compulsory labor, as per International Labor Organization (ILO) Conventions C29 and C105, at its facilities.

D.6.4 Child Labor Prohibitions.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that child labor prohibition is addressed in the manufacturer's social responsibility strategy. Additionally, the manufacturer shall provide the certifier with written confirmation that they do not operate facilities that do not follow ILO Conventions C182.

D.6.5 Environmental Regulation Compliance.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that environmental regulation compliance is addressed in the

manufacturer's social responsibility strategy. Additionally, the manufacturer shall provide the certifier with a signed declaration of compliance with applicable environmental regulations as verified per reasonable inquiry.

D.6.6 Health and Safety Regulation Compliance.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The certifier shall verify that health and safety regulation compliance is addressed in the manufacturer's social responsibility strategy. Additionally, the manufacturer shall provide the certifier with a signed declaration of compliance with applicable health and safety regulations as verified per reasonable inquiry.

D.6.7 Voluntary Safety Program Participation.

An elective CU may be rewarded if the manufacturer can provide the certifier with evidence of participation in OSHA Safety Consultation, Voluntary Protection Program (VPP), or OHSAS 18001. Alternatively, an "equivalent" health and safety management system shall suffice if the certifier can be provided with documentation stating that the system is structured in the following way:

- Occupational Health and Safety (OH&S) Policy Statement defined and authorized by the organization's top management
- Hazard identification, risk assessment and determining controls: The organization shall establish, implement and maintain procedures for the ongoing hazard identification, risk assessment, and determination of necessary controls.
- Legal and other requirements: The organization shall establish, implement and maintain procedures for identifying and accessing the legal and other applicable OH&S requirements.
- Resources, roles, responsibility, accountability and authority: Top management shall take ultimate responsibility for OH&S and the OH&S management system. All those with management responsibility shall demonstrate their commitment to the continual improvement of OH&S performance. The organization shall ensure that persons in the workplace take responsibility for aspects of OH&S over which they have control.
- Competence, training and awareness: Internal communication among the various levels and functions of the organization as well as with contractors and other external parties. Participation of workers by their appropriate involvement in hazard identification, risk assessments and determination of controls.
- Control of Documents and Records: Establish procedures for control of documents and records required by the OH&S management system.
- Operational Control: The organization shall determine those operations and activities that are associated with the identified hazards where the implementation of controls is necessary to manage the OH&S risks.
- Emergency preparedness and response: Establish, implement and maintain procedures to identify the potential for emergency situations and to respond to such situations.
- Performance measurement and monitoring: Establish, implement and maintain procedures to monitor and measure OH&S performance on a regular basis.
- Evaluation of compliance: Establish, implement and maintain procedures for periodically evaluating compliance with applicable legal requirements.

- Incident investigation, nonconformity, corrective action and preventive action: Establish, implement and maintain procedures to record, investigate, and analyze incidents. Establish, implement and maintain procedures for dealing with actual and potential nonconformities and for taking corrective action and preventive action.
- Internal Audits: Ensure that internal audits of the OH&S management system are conducted at planned intervals.
- Management Review: Top management shall review the organization's OH&S Management System at planned intervals, to ensure it continuing suitability, adequacy and effectiveness.
- Continuing improvement: Show a commitment to continual improvement.

D.6.8 ANSI A138.1 Conformance Assurance Program.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. The manufacturer shall provide the certifier with internal documentation which reflects the establishment of a conformance assurance program specific to ANSI A138.1. This program shall be dedicated to assuring that continued conformance with all necessary requirements.

D.6.9 FTC Compliant Green Marketing Claims.

As a prerequisite for conformance with ANSI A138.1, this mandatory requirement shall be satisfied. Manufacturer shall provide the certifier with a statement that all of its marketing claims are in compliance with the Federal Trade Commission (FTC) Green Guides. This statement shall be a signed and shall further clarify that the manufacturer has reviewed FTC regulations and determined to best of their knowledge that they are in compliance.

D.6.10 Manufacturer Community Involvement.

An elective CU may be rewarded if the manufacturing corporation, exclusive of its parent company or subsidiaries, can demonstrate to the certifier the existence of an on-going community involvement program. The manufacturer shall provide the certifier with documentation indicating past, present, and future community involvement, and the certifier shall be allowed to exercise judgment as to whether or not such involvement can be considered to be an "on-going" commitment.

D.6.11 Manufacturer Public Disclosure.

An elective CU may be rewarded if the manufacturer can produce evidence that at least one of the items specified in section 6.11 of ANSI A138.1 are disclosed publically and pertinent to the facility in which the product of interest is manufactured. Such disclosure may be made evident by physical display to the certifier of the information in a website, product literature, corporate sustainability report, or other medium of communication which is readily available to and easily accessible by the general public.

D.6.12 Manufacturer Annual Sustainability Reports.

An elective CU may be rewarded if the manufacturer can provide the certifier with a copy of its annual sustainability report which contains all information specified in section 6.12 of ANSI A138.1. Alternatively, documentation may be provided to the certifier verifying inclusion of the manufacturer in the Dow Jones Sustainability Index (DJSI) or manufacturer reporting as per the Global Reporting Initiative (GRI) framework.

D.6.13 LEED or Green Globes Certification for Facilities.

An elective CU may be rewarded if the manufacturer can demonstrate to the certifier possession of a plaque or certificate which indicates LEED or Green Globes certification for at least one of its facilities. This facility may be any manufacturing building, office building, warehousing or distribution center owned by the corporation but shall not include buildings belonging to a parent company or subsidiary.

Annex E -Innovation-

ANSI A138.1 Criteria Interpretation Strategies and Conformance Certification Requirements

For ease of reference, the following descriptions are organized such that the numbering sequences which follow "E" are consistent with ANSI A138.1.

E.7.1 Exceptional Conformance 1.

An elective CU may be rewarded if the manufacturer exceeds a quantitative criterion in Section 3 or 4 of ANSI A138.1 (verified by the certifier as per the guidelines established in Annexes A and B of this document) by at least one and a half times the most stringent threshold established. In some cases, it is not possible for a quantitative criterion to be exceeded by one and a half times the most stringent threshold. In such cases, the exceptional thresholds established in Appendix C of ANSI A138.1 shall be utilized.

Example 1: Glass Tile with 90% Recycled/Reclaimed Content.

The Level 1 (Mandatory) criterion of 25% for glass tile is met. The Level 2 (Elective) criterion of 40% for glass tile is met, so one elective CU is earned. The Level 3 (Elective) criterion of 60% for glass tile is met, so a second elective CU is earned. Since this product contains one and a half times the most stringent (highest) established recycled/reclaimed content threshold for glass tile ($1.5 \times 60\% = 90\%$), it meets the criterion for exceptional conformance (Elective). Therefore, a third elective CU is earned.

Example 2: Manufacturer utilizes heat recovery systems in 9 of its 20 fuel consuming units. *The heat recovery criterion (Elective) of 30% by unit (6 units, in this case) is met, so an elective CU is earned. Since this manufacturer utilizes heat recovery in 9 units (45% of fuel consuming units), which is at least one and a half times the most stringent established criterion of 6 units (or only established criterion, in this case), it meets the criterion for exceptional conformance (Elective). Therefore, a second elective CU is earned.*

Example 3: Ceramic Tile with LRV of 90%.

The LRV criterion (Elective) of 70% is met, so an elective CU is earned. This is a quantitative criterion where it is not possible to double the most stringent threshold (or only threshold, in this case): $1.5 \times 70\% = 105\%$, which is not possible for LRV. As a result, Appendix C of ANSI A138.1 shall be utilized. Since this product of interest's LRV exceeds the innovative threshold for LRV of 85% specified in Appendix C, it meets the criterion for exceptional conformance (Elective). Therefore, a second elective CU is earned.

E.7.2 Exceptional Conformance 2.

A second elective CU may be rewarded if the criteria outlined in section E.7.1 of this document are met for a separate ANSI A138.1 product criterion (section 3) or manufacturing criterion (section 4).

E.7.3 Innovative Attribute or Process.

An elective CU may be rewarded if the product of interest possesses an ecological attribute not addressed by ANSI A138.1, is manufactured in a facility with ecological processes not addressed by ANSI A138.1, or belongs to an organization with an innovative corporate governance strategy not addressed by ANSI A138.1. The manufacturer shall provide the certifier with a presentation and/or demonstration of the innovation, and the certifier shall automatically grant approval if the innovation is listed in Appendix C of ANSI A138.1. If the innovation is not listed in Appendix C, the manufacturer shall provide the certifier with a written explanation of the innovation, its benefit, and why it should be considered separately from other criteria in ANSI A138.1. Upon receipt of necessary paperwork and manufacturer presentation and/or demonstration of the innovation, the certifier shall submit the application to the ANSI A108 Committee to obtain approval for inclusion in Appendix C.

E.7.4 Greenhouse Gas Awareness.

An elective CU may be rewarded if a carbon footprint and effective greenhouse gas reduction strategy can be provided for the product of interest or its manufacturing organization. The manufacturer shall provide the certifier with calculations or a 3rd party report which demonstrates a history of net greenhouse gas reduction and/or a prescriptive net reduction strategy for the product of interest or its manufacturing organization.

End of **Green Squared** Certification Program Criteria