

June 7, 2016

Attorney General Kathleen Kane
Pennsylvania Office of Attorney General
16th Floor, Strawberry Square
Harrisburg, PA 17120

Ms. Marsha A. Sajer, Chief Counsel
Department of Labor & Industry, Uniform Construction Codes
651 Boas Street, Room 1613
Harrisburg, PA 17121

Mr. Juan Ruiz, Esquire
Board Counsel
Ms. Robin R. Shearer
Board Administrator
Board for Professional Engineers, Land Surveyors and Geologists
One Penn Center, 2601 N. 3rd Street
Harrisburg, PA 17110

Mr. Ian J. Harlow, Commissioner
Bureau of Professional and Occupational Affairs
2601 N 3rd St,
Harrisburg, PA 17110

Dear Attorney General Kane, Chief Counsel Sajer, Board Counsel Ruiz, and Commissioner Harlow:

Please find a quick introduction of the Structural Building Components Association (SBCA) in Appendix A. Our goal with this letter is to set forth Pennsylvania law and define a systematic approach for any new product manufacturer to implement the code provisions related to alternative materials, designs or methods of construction inside Pennsylvania law by Pennsylvania Building Official/Building Official "Contractor Staff¹" (PABO).

Pennsylvania Product Evaluations

The PA law that is germane to implementation of the typical building code provision called alternative materials, designs or methods of construction follows ([for standard language please see IBC Section 104.11](#)):

[§ 403.44. Alternative construction materials and methods.](#)

(a) Materials, products and methods of construction that were evaluated as meeting codes enumerated in § 403.21 (relating to Uniform Construction Code) by the ICC Evaluation Service, Inc. or an evaluation service accredited under the "General Requirements for Bodies Operating Product Certification Systems" issued by the ISO (ISO Guide 65) are approved for use. The use shall conform with the evaluation.

(b) Materials, equipment and devices bearing the label or listed by a testing laboratory or quality assurance agency accredited by the International Accreditation Service, Inc. or another agency accredited under the "Calibration and Testing Laboratory Accreditation Systems-General Requirements for Operation and Recognition" issued by ISO (ISO Guide 58) are approved for use if:

¹ Pennsylvania Building Departments are hiring plan review and inspection companies under contract to act as their agents in performance code mandated plan review and inspections.

Supporters of Advancements in Engineering Innovations

- (1) The testing laboratory or quality assurance agency deemed the material as meeting Uniform Construction Code-required standards.
- (2) The scope of accreditation is applicable to Uniform Construction Code-required standards.
- (c) A new building or remodeling, alteration, addition or change of use and occupancy of an existing building which complies with the International Performance Code shall also be in compliance with the Uniform Construction Code.

Cross References

This section cited in 34 Pa. Code § 403.41 (relating to commercial construction); and 34 Pa. Code § 403.102 (relating to municipalities electing to enforce the Uniform Construction Code).

In other words, a product can be evaluated and be acceptable for use pursuant to the [Pennsylvania Code](#) in the following ways:

1. A [Pennsylvania licensed professional engineer](#) is allowed to use proprietary testing information and generally accepted engineering practice for certifying compliance with the building specifications adopted by UCC; or
2. An 'evaluation service accredited under the "General Requirements for Bodies Operating Product Certification Systems" issued by the ISO (ISO Guide 65) are approved for use'.
 - a. Today this means an [ISO/IEC 17065 accreditation](#).
3. An "ICC evaluation report" (i.e., a [research report](#)² as defined in the IBC) may be used and submitted to a PABO for certifying compliance with the building specifications adopted by UCC.
 - a. Since it is assumed that PA law does not intend to designate a monopoly position to a private company to provide a given set of professional services, an "ICC evaluation report" means and is synonymous with an evaluation report created by an [ANSI ISO/IEC 17065 accredited product certification listed body](#), which conform to the "research report/evaluation report" approval requirements of ["IBC Section 1703 Approvals."](#)
 - i. Section 1703 is adopted into PA law through the UCC adoption of the IBC.
 - b. There are 80 competing organizations to choose from, all performing "ICC evaluation reports" under the [ANSI accreditation process](#) for given scopes of certification.
 - c. Given this, all 80 firms can certify compliance with the building specifications adopted by UCC and be accepted by PABOs as valid "ICC evaluation reports."
4. Materials, equipment and devices bearing the label or listed by an [ISO/IEC 17025 testing laboratory](#) or [ISO/IEC 17020 quality assurance agency](#) is sufficient for certifying compliance with the building specifications adopted by UCC.

Given the PA Code and UCC [alternative construction materials and methods](#) language, the following approach to code compliance is confirmed:

5. Professional engineering and the building code are intended to encourage innovation and promote the [Pennsylvania concept of fair trade](#).
6. The business logic path then suggests that, in all cases where an [ANSI accredited firm](#) or a [PA professional engineer](#) is involved,
 - a. An [ANSI accredited firm](#) or a [PA professional engineer](#) shall gain immediate PABO approval of a product evaluation (i.e., [IBC 1703.4.2 Research reports](#))
 - b. Any testing undertaken is proprietary IP that has been reviewed and affirmed by an [ANSI ISO/IEC 17065](#) report which is then [IBC section 1703 compliant](#).

² [Evaluation Reports = 1703.4.2 Research reports](#). Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

Supporters of Advancements in Engineering Innovations

- c. This approach is intended to certify compliance with the relevant Pennsylvania building code or building specifications adopted by the local jurisdiction.
- d. To amplify:
 - i. The work of an [ANSI accredited firm](#) or a [PA professional engineer](#) shall be approved by a PABO unless a PABO, upon denial of this work, provides key provisions of the administrative law, building code, and/or professional engineering law that have not been complied with, in writing.
 - 1. This includes all specific citations along with commentary on what specifically is in non-compliance with appropriate evidence supporting the item of non-compliance.
 - ii. Since the building code and any administrative law is essentially a legal contract, any PABO shall also provide the specific path to cure any deficiency so that the [ANSI accredited firm](#) or a [PA professional engineer](#) can take specific actions to cure.
 - 1. Failure to approve without providing specific actions to cure can be a denial of a professional engineer's license to work in their area of expertise.
 - iii. When each deficient element is fully cured in writing, approval shall be granted.
 - iv. If not fully cured, approval will remain denied until cured.

This is a review of the Pennsylvania Building Code, Pennsylvania Administrative law and Professional Engineering law. Given this review, implementing the use of alternative materials, designs or methods of construction by any group listed on the [ANSI Accredited Product Certification Body website](#) or by any [PA professional engineer](#) shall be allowed to be used and approved for use by any PABO as systematically defined in item 6 above. The goal is to ensure that all [ANSI 17065 accredited organizations](#) or a [PA professional engineer](#) are treated consistently.

Please let me know if any of the above information is incorrect. Otherwise SBCA will encourage our members to expect that this recap is accurate, will take action accordingly and will expect outcomes accordingly as well.

Thank you very much for your consideration of these concepts, your timely feedback if anything presented is incorrect and any further insight/counsel that can be provided so that SBCA members assuredly comply with Pennsylvania laws.

Respectfully yours,



Kirk Grundahl, P.E.
Executive Director
[Pennsylvania PE License No. PE084281](#)

Supporters of Advancements in Engineering Innovations

Appendix A

SBCA is a national trade association of companies that produce and sell innovative engineered floor, wall and roof structural components and related building envelope oriented products. Currently SBCA's membership includes 410 companies and 919 manufacturing locations in the U.S. and Canada, along with a variety of suppliers. SBCA represents approximately 90% of the more than \$8 billion (best estimate in 2015) in building components sold in the U.S. Our industry deploys many professional engineers and works closely with building departments across the country to implement new and innovative products that use generally accepted engineering practice concepts for acceptance into the market.

The only way to market for new products, when professionally engineered and for code compliance, is through section 104.11 of the building code, which most state laws acknowledge through language similar in concept to that stated in the [2015 IBC](#) as follows:

[A] 104.11 Alternative materials, design and methods of construction and equipment.

The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design or method of construction shall be *approved* where the *building official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code in quality, strength, effectiveness, *fire resistance*, durability and safety. Where the alternative material, design or method of construction is not *approved*, the *building official* shall respond in writing, stating the reasons why the alternative was not *approved*.

Professional engineering and the building code are intended to encourage innovation and promote the [Pennsylvania concept of fair trade](#), which expands the value to Pennsylvania consumers. Unfortunately, there are times when artificial constraints are put in the way of implementing the use of innovative products through generally accepted engineering practice and provisions in the law that encourage engineering innovation. SBCA's goal is to ensure that all [ANSI 17065 accredited organizations](#) or a [PA professional engineer](#) are treated consistently.