DOCKETED

Docket Number:	17-BSTD-01
Project Title:	2019 Building Energy Efficiency Standards PreRulemaking
TN #:	222003
Document Title:	KW Engineering Comments On 2019 Building Energy Efficiency Standards PreRulemaking (Part 2 of 2)
Description:	N/A
Filer:	System
Organization:	KW Engineering
Submitter Role:	Public
Submission Date:	12/18/2017 1:47:15 PM
Docketed Date:	12/18/2017

Comment Received From: KW Engineering
Submitted On: 12/18/2017
Docket Number: 17-BSTD-01

On 2019 Building Energy Efficiency Standards PreRulemaking (Part 2 of 2)

Additional submitted attachment is included below.

December 15, 2017

Docket Number: 17-BSTD-01
Project Title: 2019 Building Energy Efficiency Standards PreRulemaking
Document Title: Building Commissioning Association Comments to Title 24 Section 120.8
Organization: Building Commissioning Association, California Chapter

The Board of Directors of the Building Commissioning Association (BCA) appreciates the opportunity to provide the following input to Section 120.8 (Commissioning).

Currently, Title 24-2016 does not require the person performing commissioning on the project to be certified – anyone can do it. As a body dedicated to elevating the quality of the industry, we recommend the code be amended to require that commissioning work for buildings over 50,000 square feet or with a complex mechanical system be performed by third party ANSI-accredited certified commissioning professional. As a professional association and the first to receive ANSI accreditation for our commissioning certification (CCP – Certified Commissioning Professional), we understand the importance of high standards and commitment to the practice of commissioning.

We believe these changes are implementable, reasonable, and will bring quality to the commissioning process for the following reasons:

Precedent exists. Washington State's and Seattle's energy codes (excerpts attached) have already included requirements for a certified commissioning professional. They adopted this requirement in 2015 as a result of input from Treasa Sweek, PE to rectify vague language in the 2012 code. Furthermore, the US Army Corps of Engineers, NASA, and other federal departments require a certified commissioning professional for their projects.[1]

Cost impacts are minimal: We recognize the cost implications that might be present if adding an accredited commissioning professional to a smaller project. Therefore, we recommend third party commissioning providers be added to a project where the size or complexity is appropriate. This approach is consistent with current code's requirements for third party design review for large or complex projects.

[1] UNIFIED FACILITIES GUIDE SPECIFICATIONS Section 01 91 00.15 Total Building Commissioning, part 1.7 (page 12)

There is a sufficient number of certified commissioning professionals and the infrastructure to produce them. Currently, ANSI- accredited certifications are being issued by at least 3 bodies (ASHRAE, BCA/BCCB, and ACG), with more on the way. In order for the acceptance testing requirements for lighting controls and mechanical systems to take effect, there must be over 300 certified testers. Similarly, there are more than enough certified commissioning professionals in California (and nationwide). The number of certified commissioning professionals are:

- ASHRAE: 69 registered with the new certification[2] and over 350 California individuals with the older certification
- BCA/BCCG: 32 in California and 430 nationwide[3]
- ACG: 133 in California and over 1000 nationwide[4]

Quality implementation of code requires accreditation. Right now, anyone can provide commissioning services, regardless of their experience, qualifications, or contractual role. There are over 17 commissioning certifications out there, some only requiring that you pay a fee and take a test, with no experience requirements. When certification only relies on money and paperwork, quality suffers, mitigating any benefit or energy savings that the code is supposed to ensure. ANSI accreditation is a valid measure of quality because it means that commissioning certifications are industry-accepted, third-party validated, and ISO 17024-compliant.

Furthermore, quality implementation requires third party commissioning professionals. The commissioning field has become specialized enough that the activities required under code require extensive experience that is not possible to obtain when also performing the duties of project engineer, architect, or contractor. The amount of specialized experience is exactly why a certification *and* ANSI accreditation are important. It is for this reason that allowing non-certified individuals generates shoddy work and poor implementation of code. Public comment on Seattle's draft 2015 code from commissioning providers described shoddy commissioning work by those not doing Cx in their daily roles/certification.

Although contractors may have the knowledge and capability to test the equipment they install, they may not have the specialized skills necessary to bring quality to the projects requiring commissioning. With current staffing levels, we, the undersigned, attest that the individuals capable of fulfilling the commissioning requirements do not have the time to perform the duties listed herein. In addition, we contend that it is difficult for contractors to objectively test and assess their own work, especially since repairing deficiencies found through commissioning may increase their costs.

Continued on next page

[2] Search of the ASHRAE certification database https://www.ashrae.org/education-certification/certification/find-an-ashrae-certified-professional, accessed 11/29/17
[3] BCCB CCP Registry http://bccbonline.org/ccp/registry/. Accessed 8/30/2017
[4] Per communication with Natalie Gitelman, AABC Commissioning Group Membership Chair

Our recommendations for modifications to the code include:

- Add a definition for certified commissioning professional to section 10-102
- Add the option for a certified commissioning professional to Section 10-103
- Add wording to require a certified commissioning professional to large projects or projects with complex mechanical systems (in line with design review requirements in current code) to section 120.8.

In conclusion, the California Chapter of the Building Commissioning Association, recommend requiring that commissioning professionals be not only certified, but the certification be ANSI-Accredited. Amended code language is presented on the following page.

Lyn Gomes, CCP, PE, LEED AP, CLCATT
kW Engineering
BCA California Board Member, on behalf of the entire California BCA Board:

President
Charles Hutchinson, LEED AP
tk1sc

Vice President
Steve Carroll, PE, LEED AP
Glumac

Secretary
Brian Graham, PE, CBCP, LEED AP
Design West Engineering

Treasurer
Bradley Brooks, Ed.D, CCP, LEED AP
Cx Solutions

Board Member
Christopher Kerr
Jacobs

Board Member
James Anderton, CPMP, CxA, LEED GA
Independent Commissioning Consulting, LLC

Attachment: Text of amendments:

Definitions – Add the following definition to section 10-102:

> **CERTIFIED COMMISSIONING PROFESSIONAL.** An individual who is certified by an ANSI/ISO/IEC 17024:2012 accredited organization to lead, plan, coordinate and manage commissioning teams and implement commissioning processes. The individual's accredited certification required by the referenced standard provides a measured level of experience and competence with the various whole building commissioning processes and the ability to deliver quality service. Accredited organizations include, but are not limited to, ASHRAE, ACG, and BCA/BCCB.

Modify Section 10-103(a)1, second paragraph:

> For all Nonresidential buildings, the Design Review Kickoff Certificate(s) of Compliance and the Construction Document Design Review Checklist Certificate(s) of Compliance shall be reviewed and signed by a licensed professional engineer or licensed architect, or a licensed contractor**, or certified commissioning professional** representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code. For buildings less than 10,000 square feet, this signer may be the engineer or architect of record. For buildings greater than 10,000 square feet but less than 50,000 square feet, this signer shall be a qualified in-house engineer or architect with no other project involvement or a third party engineer, architect, ~~or~~ contractor**, or certified commissioning professional**. For buildings greater than 50,000 square feet and all buildings with complex mechanical systems serving more than 10,000 square feet, this signer shall be a ~~third party engineer, architect, or contractor~~ **certified commissioning professional**.

Add the following to Section 120.8, after the second paragraph (context provided):

> Nonresidential buildings with conditioned space of 10,000 square feet or more shall comply with the applicable requirements of Sections 120.8(a) through 120.8(i) in the building design and construction processes. All building systems and components covered by Sections 110.0, 120.0, 130.0, and 140.0 shall be included in the scope of the commissioning requirements in this Section, excluding those related solely to covered processes. Nonresidential buildings with conditioned space of less than 10,000 square feet shall comply with the design review requirements specified in Sections 120.8(d), and shall include any measures or requirements necessary for completing this review in the construction documents in a manner consistent with Section 120.8(e).
>
> **For buildings with a conditioned space greater than 50,000 square feet and all buildings with complex mechanical systems servicing more than 10,000 square feet:**
>
> **(1) The OPR and BOD completed as part of sections 120.8(b) and (c) shall be reviewed by a certified commissioning professional.**
> **(2) The requirements of sections 120.8(e), (f), (h)1, and (i) shall be performed by a certified commissioning professional.**