ADDENDA

ANSI/ASHRAE/IES Addendum b to ANSI/ASHRAE/IES Standard 202-2013

Commissioning Process for Buildings and Systems

Approved by ASHRAE on January 31, 2018; by IES on December 20, 2017; and by the American National Standards Institute on February 1, 2018.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE website (www.ashrae.org) or in paper form from the Senior Manager of Standards.

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testing: the process of verifying that a material, product, assembly, or system meets defined performance criteria. The methods and conditions under which performance is verified are described in one or more test protocols. (Informative Note: See Appendix for a more complete list of testing related terms.)

training plan: a written document that details the expectations, schedule, duration and deliverables of Commissioning Process Cx Activities related to training of project operating and maintenance personnel, users, and occupants.

Revise Section 4 as shown. The remainder of Section 4 is unchanged.

4. UTILIZATION

4.1 Introduction. The application of this standard can be for the delivery of all or selected systems and assemblies in a project. The scope will depend upon how the project will be designed, built, and operated. The scope shall be defined in the Owner's Project Requirements, contract documents and the Cx Plan and performed based on the extent of the commissioning—Cx_effort defined and procured. The process described in this standard is written for a generic project and must be adapted to each project. This standard describes the Cx-Process and can be supplemented by companion technical documents and guidelines to describe the specific details to properly implement the Cx-Process relative to a specific facility, system, or assembly. This standard can be applied to both new and renovation projects.

4.2 Requirements

- **4.2.1** The requirements of this standard are to
- a. provide the minimum activities for the application of the Cx Process—in the design, development,—construction, operation, and modification of physical buildings, systems, and assemblies.
- b. establish Cx Activities and their sequence, and
- c. establish deliverables and documentation for the process application.

4.2.2 Commissioning Process<u>Cx</u> Activities and Deliverables

| Activity | Deliverable |
|----------------------|----------------------------|
| Initiate Cx Process | Roles and Responsibilities |
| \downarrow | \downarrow |
| Decide | Owner's |
| Project Requirements | Project Requirements |
| \downarrow | \downarrow |
| Develop | Cx |
| Cx Plan | Process Plan |
| \downarrow | \downarrow |
| Design Approach | Basis |
| to Requirements | of Design |
| \downarrow | \downarrow |
| Set Contractor | Cx |
| Cx Requirements | Specifications |

| Activity | Deliverable |
|-----------------------------|----------------------------|
| \ | <u> </u> |
| Review Design | Design Review |
| to Requirements | Report |
| \downarrow | \downarrow |
| Review Submittals | Submittal Review Report |
| \downarrow | \downarrow |
| Observe | Construction Checklists |
| and Test | and Reports |
| \downarrow | \downarrow |
| Resolve Issues | Issues and Resolution Log |
| \downarrow | \downarrow |
| Assemble Systems Manual | Systems Manual |
| \downarrow | \downarrow |
| Conduct Training | Training Plans and Records |
| \downarrow | \downarrow |
| Postoccupancy Operation | End of Warranty Cx |
| 1 ostoccupancy Operation | Progress Report |
| \downarrow | \downarrow |
| Assemble Cx Progress Report | Cx Progress Report |

4.3 Acceptance. The process for each activity and deliverable shall include an acceptance step as defined in the OPR and reflected in the contract documents and associated Cx Plan. This step shall formalize the acceptance of the eommissioning-Cx deliverable by the owner or client. Under this standard, the-Cx Provider CxP is not required to accept designer's or contractor's work on behalf of the owner or jurisdiction.

Revise Section 5 as shown. The remainder of Section 5 is unchanged.

5. INITIATING THE COMMISSIONING Cx PROCESS

5.1 General

5.1.1 Introduction. At the initiation of the Cx-Process, the owner is responsible for determining the Cx scope-of the Cx Plan (that is, the systems and assemblies to be included), selecting the CxP Process tTeam leader, selecting and the CxP Process tTeam for the project, incorporating ensuring Cx aActivities are incorporated into pProject tTeam agreements that define the Project Team's Cx roles and responsibilities, and the establishmentestablishing of the Cx budget, and developing the Owner's Project Requirements (OPR).

5.1.2 Project Team Selection-Commissioning Process Providers. The owner is responsible for selecting qualified Project Team members Cx process professionals. The Cx Provider CxP directs the Cx-Process and shall be an objective advocate of the owner.

5.1.3 Providing Direction and Acceptance. The owner shall provide direction, reviews and acceptance as required throughout the project and the Cx-process.

5.2 Commissioning Cx Requirements