

I have unfortunately just heard of this proposed requirement for design review by a mechanical engineer. This was included in a new requirement for building commissioning that will already require another person to be included in the design team. Commissioning agents already perform most of the tasks specified for this design reviewer. I can see no justification for requiring another person who has no knowledge of the work done by the design team, to second guess their decisions. This will do nothing but add complexity and cost to projects and will undermine the efforts of the IOUs to promote Integrated Building Design.

Here are the 2 Items that need to be corrected in the proposed language. The 1st is the removal of requirements for design review by a mechanical engineer. The 2nd corrects an incorrect referenced standard date.

1. In addition to the attached change to section 120.8, the definition of "Design Review" should be deleted from Section 100.1 and Appendix JA1. Also, the second paragraph of Section 10-103 (a) 1. should be deleted.

2. The correct date for the referenced standard in Appendix 1-A for AHRI 550/590 should be 2011, not 2003.

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2008-2013 Building

- 3. Design phase design review;
- 4. - Commissioning measures shown in the construction documents;
- 5. - Commissioning plan;
- 6. - Functional performance testing;
- 7. - Documentation and training; and
- 8. - Commissioning report.

(b) Owner's or Owner Representative's Project Requirements (OPR). The energy-related expectations and requirements of the building shall be documented before the design phase of the project begins. This documentation shall include the following:

- 1.- Energy efficiency goals;
- 3.- Ventilation requirements;
- 4- Project program, including facility functions and hours of operation, and need for after hours operation; and
- 5.- Equipment and systems expectations.

EXCEPTION to Section 120.8(b): Buildings less than 10,000 ft².

(c) -- Basis of Design (BOD). A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project, and updated as necessary during the design and construction phases. The Basis of Design document shall cover the following systems:

- 1. -Heating, ventilation, air conditioning (HVAC) systems and controls;

2. Indoor lighting system and controls; and
3. Water heating systems and controls: and
4. Covered processes.

EXCEPTION to Section 120.8(c): Buildings less than 10,000 ft².

(d) — Design Phase Design Review.

1. **Design Reviewer Requirements.** For buildings less than 10,000 ft², design phase design review may be completed by the design engineer. Buildings between 10,000 and 50,000 ft² require completion of the Design Review Checklist by either an engineer in-house to the design firm but not associated with the building project, or a third party design engineer. For buildings larger than 50,000 ft² or for buildings with complex mechanical systems, an independent, review of these documents by a third party design engineer is required.
2. **Design Review.** During the schematic design phase of the building project, the owner or owner's representative *and* design team and design reviewer must meet to discuss the project scope *and* schedule and how the design reviewer will coordinate with the project team. The building owner or owner's representative shall include the Design Review Checklist compliance form in the Certificate of Compliance documentation (see Section 10-103).
3. **Construction Documents Design Review.** The Construction Documents Design Review compliance form lists the items that shall be checked by the design reviewer during the construction document review. The completed form shall be returned to *reviewed by* the owner and design team for review *and and signed-off*. The building owner or owner's representative shall include this Construction Documents Design Review compliance form in the Certificate of Compliance documentation (see Section 10-103).

(e) Commissioning measures shown in the construction documents. Include commissioning measures or requirements in the construction documents (plans and specifications). Commissioning measures or requirements should be clear, detailed and complete to clarify the commissioning process. These requirements should include the list of systems and assemblies commissioned, testing scope, roles and responsibilities of contractors, requirements for meetings, management of issues, the commissioning schedule, operations and maintenance manual development and

SECTION 120.8 - RESERVED. BUILDING COMMISSIONING