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March {DATE}, 2015

California Energy Commission
Attention: Docket No. 15-BSTD-01
Dockets Office
1516 Ninth Street, MS-4
Sacramento, CA 95814

California Energy Commission

DOCKETED

15-BSTD-01

TN # 75280

MAR 04 2015

RE:2016 Building Energy Efficiency Standards, Docket No. 15-BSTD-01

Dear California Energy Commission:

Enclosed are comments concerning the 2016 Building Energy Efficiency Standards as follows:

1. SECTION 100.1 – DEFINITIONS AND RULES OF CONSTRUCTION

DESIGN REVIEW is an additional review of the construction documents (drawings and specifications) that seeks to improve compliance with existing Title 24 regulations, to encourage adoption of best practices in design, and to encourage designs that are constructible and maintainable. It is an opportunity for an experienced design engineer to look at a project with a fresh perspective in an effort to catch missing or unclear design information and to suggest design enhancements.

Proposed Revision:

Recommend revising highlighted text to "design engineer or architect".

Rationale:

This revision will provide consistency with other provisions within the California Building Standards Codes to allow all applicable licensed professionals under the code to be qualified to perform these services.

2. 10-103– PERMIT, CERTIFICATE, INFORMATIONAL, AND ENFORCEMENT REQUIREMENTS FOR DESIGNERS, INSTALLERS, BUILDERS, MANUFACTURERS, AND SUPPLIERS 10-103 – PERMIT, CERTIFICATE, INFORMATIONAL, AND ENFORCEMENT REQUIREMENTS FOR DESIGNERS, INSTALLERS, BUILDERS, MANUFACTURERS, AND SUPPLIERS

For all Nonresidential buildings, the Design Review Kickoff Certificate(s) of Compliance, and Construction Document Design Review Checklist Certificate(s) of Compliance shall be completed and signed by a **licensed professional engineer**. For buildings less than 10,000 square feet, **the licensed professional engineer** may be the engineer of record. For buildings greater than 10,000 square feet but less than 50,000 square feet, the **licensed professional engineer** shall be a qualified **in-house engineer** with no other project involvement or a **third party engineer**. Contractors accepting the responsibilities of the **engineer** under the provision of the Business and Professions Code may also complete and sign these certificates. For buildings greater than 50,000 square feet and all buildings with complex mechanical systems serving more than 10,000 square feet, the **licensed professional engineer** shall be a third party.

EXCEPTION to Section 10-103(a): Enforcing agencies may exempt nonresidential buildings that have no more than 1,000 square feet of conditioned floor area in the entire building and an occupant load of 49 persons or less from the documentation requirements of Section 10-103(a), provided a statement of compliance with Part 6 is submitted and signed by a licensed engineer or the licensed architect with chief responsibility for the design.

Proposed Revision:

Recommend revising all bolded and highlighted wording to "**licensed professional engineer or architect**", "**in-house engineer or architect**", "**third party engineer or architect**", and "**engineer or architect**".

Rationale:

This revision will provide consistency with other provisions within the California Building Standards Codes to allow all applicable licensed professionals under the code to be qualified to perform these services.

3. 10-103-A– NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST TRAINING AND CERTIFICATION

2. Industry Coverage by Certification Provider(s). The Certification Provider(s) approved by the Energy Commission, in their entirety, shall provide reasonable access to certification for technicians representing the majority of the following industry groups: electrical contractors, certified general electricians, **professional engineers**, controls installation and startup contractors and certified commissioning professionals who have verifiable training, experience and expertise in lighting controls and electrical systems. The Energy Commission will determine whether in their entirety reasonable access to certification is provided by considering factors such as certification costs commensurate with the complexity of the training being provided, certification marketing materials, prequalification criteria, class availability, and curriculum. (c) Qualifications and Approval of Certification Providers. The Acceptance Test Technician Certification

Proposed Revision:

Recommend revising bolded and highlighted wording to "**professional engineers or architects**"

Rationale:

This revision will provide consistency with other provisions within the California Building Standards Codes to allow all applicable licensed professionals under the code to be qualified to perform these services.

4. 10-103-B– NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST TRAINING AND CERTIFICATION

2. Industry Coverage by Certification Provider(s). The Mechanical Acceptance Test Technician Certification Provider(s) approved by the Energy Commission, in their entirety, provide reasonable access to certification for technicians representing the majority of the following industry groups: **Professional engineers**, HVAC installers, mechanical contractors, Testing and Balancing (TAB) certified technicians, controls installation and startup contractors and certified commissioning professionals who have verifiable training, experience and expertise in HVAC systems. The Energy Commission will determine reasonable access by considering factors such as certification costs commensurate with the complexity of the training being provided, certification marketing materials, prequalification criteria, class availability and curriculum.

Proposed Revision:

Recommend revising bolded and highlighted wording to “**professional engineers or architects**”

Rationale:

This revision will provide consistency with other provisions within the California Building Standards Codes to allow all applicable licensed professionals under the code to be qualified to perform these services.

5. SECTION 110.2– MANDATORY REQUIREMENTS FOR SPACE CONDITIONING EQUIPMENT Certification by Manufacturers. Any space-conditioning equipment listed in this section may be installed

(e) Open and Closed Circuit Cooling Towers. All open and closed circuit cooling tower installations shall comply with the following: 1. Be equipped with Conductivity or Flow-based Controls that maximize cycles of concentration based on local water quality conditions. Controls shall automate system bleed and chemical feed based on conductivity, or in proportion to metered makeup volume, metered bleed volume, recirculating pump run time, or bleed time. Conductivity controllers shall be installed in accordance with manufacturer’s specifications in order to maximize accuracy. 2. Documentation of Maximum Achievable Cycles of Concentration. Building owners shall document the maximum cycles of concentration based on local water supply as reported annually by the local water supplier, and using the calculator approved by the Energy Commission. The calculator is intended to determine maximum cycles based on a Langelier Saturation Index (LSI) of 2.5 or less. Building owner shall document maximum cycles of concentration on the mechanical compliance form which shall be reviewed and signed by **the Professional Engineer (P.E.) of Record**.

Proposed Revision:

Recommend revising bolded and highlighted wording to “**professional engineer (P.E.) or architect of record**”

Rationale:

This revision will provide consistency with other provisions within the California Building Standards Codes to allow all applicable licensed professionals under the code to be qualified to perform these services.

6. SECTION 120.6 – MANDATORY REQUIREMENTS FOR COVERED PROCESSES

EXCEPTION 2 to Section 120.6(a)3B: Coolers within refrigerated warehouses that maintain a Controlled Atmosphere for which **a licensed engineer** has certified that the types of products stored will require constant operation at 100 percent of the design airflow

Proposed Revision:

Recommend revising bolded and highlighted wording to “**a licensed engineer or architect**”

Rationale:

This revision will provide consistency with other provisions within the California Building Standards Codes to allow all applicable licensed professionals under the code to be qualified to perform these services.

In regards to all suggested revisions, Division 3, Chapter 3, Article 1 of the Business and Professions Code states the following: 5500.1. (a) The practice of architecture within the meaning and intent of this chapter is defined as offering or performing, or being in responsible control of, professional services which require the skills of an architect in the planning of sites, and the design, in whole or in part, of buildings, or groups of buildings and structures. The suggested revisions will provide consistency within the California Building Standards Codes to allow architects to perform these services.

Sincerely,

Jacqueline Morgan, Architect