



**2013 Building Energy Efficiency Standards**  
**Nonresidential Acceptance Testing**  
**Certification**  
**45-Day Language Hearing**

Martha Brook, P.E.

High Performance Buildings and Standards Development Office  
California Energy Commission

October 1, 2012



## Today's Agenda

- Opening Remarks: Commissioner Douglas  
Commissioner McAllister
- Rulemaking Calendar
- Review of 45 Day Language
- Public Comments
- Adjourn



# Acceptance Testing Certification Rulemaking Calendar

Milestone	Date
45 Day Language Hearing	TODAY
End of 45 Day Comment Period	November 12, 2012
Release 15 Day Language	November 21, 2012
Possible Adoption Date	December 7, 2012
CBSC Business Meeting for Approval of 2013 Standards	January 7, 2013



## §10-102 DEFINITIONS

- **ACCEPTANCE TEST TECHNICIAN** is a person who performs the nonresidential acceptance test requirements.
  - **LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN** is a professional certified by an authorized Lighting Controls Acceptance Test Technician Certification Provider to perform lighting controls acceptance tests and complete the documentation required for lighting controls acceptance tests as required by Title-24, Part 6.
  - **MECHANICAL ACCEPTANCE TEST TECHNICIAN** is a professional certified by an authorized Mechanical Acceptance Test Technician Certification Provider to perform mechanical acceptance tests and complete the documentation required for mechanical acceptance tests as required by Title-24, Part 6.



## §10-102 DEFINITIONS

- **LIGHTING CONTROLS ACCEPTANCE TEST EMPLOYER** is a person or entity who is the employer of a Lighting Controls Acceptance Test Technician and certified by an authorized Lighting Controls Acceptance Test Technician Certification Provider.
- **MECHANICAL ACCEPTANCE TEST EMPLOYER** is a person or entity who is the employer of a Mechanical Acceptance Test Technician and certified by an authorized Mechanical Acceptance Test Technician Certification Provider.



## §10-102 DEFINITIONS

- **ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER** is an agency, organization or entity approved by the Energy Commission to train and certify Acceptance Test Technicians and Employers according to the requirements of Sections 10-103-A and B.
  - **LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER** is an agency, organization or entity approved by the Energy Commission to train and certify Lighting Controls Acceptance Test Technicians and Employers according to the requirements of Section 10-103-A.
  - **MECHANICAL ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER** is an agency, organization or entity approved by the Energy Commission to train and certify Mechanical Acceptance Test Technicians and Employers according to the requirements of Section 10-103-B.



## §10-103-A

### NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST REQUIREMENTS

#### (a) Scope

Lighting Controls Acceptance Test Technicians, Employers, and Certification Providers

#### (b) Industry Certification Threshold

##### 1. Number of Certified Acceptance Test Technicians

- No less than 1,000

##### 2. Industry Coverage by Certification Providers

- Technicians have reasonable access to training & certification
- Electrical contractors, general electricians, professional engineers, controls installation and start-up contractors, commissioning professionals ALL have opportunities to become certified technicians



## §10-103-A

### NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST REQUIREMENTS

#### (c) Qualifications and Approval of Certification Providers

1. Document organizational structure
2. Must also certify Employers
3. Document training and certification procedures
  - A. Training Scope
  - B. Lighting Controls Acceptance Test Technician training
    - i. Curricula
    - ii. Prequalification
    - iii. Instructor to trainee ratios
    - iv. Competency tests
    - v. Recertification procedures for Title 24, Part 6 updates



## §10-103-A

### NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST REQUIREMENTS

- (c) Qualifications and Approval of Certification Providers, cont.
  - 3. Document training and certification procedures, cont.
    - C. Employer training
    - D. Complaint procedures
    - E. Revoking certification procedures
    - F. Quality assurance, independent oversight & accountability measures
- (d) Requirements for Certification Providers to provide Annual Reports



## §10-103-A

### NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST REQUIREMENTS

(e) Interim Approval of the California Advanced Lighting Controls training Program (CALTCP) as Certification Provider, conditioned upon:

1. Submittal of application as required in 10-103-A(c)
2. CALTCP certified technicians must successfully complete Title 24, Part 6 lighting controls acceptance test training
3. CALTCP certified employers must successfully complete Title 24, Part 6 lighting controls acceptance test training
4. Interim approval ends July 1, 2014 or six months after the effective date of the 2013 Standards



## §10-103-A

### NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST REQUIREMENTS

#### (f) Certification Provider application review and determination

1. Energy Commission staff will review and determine the completeness of the application
2. Executive Director may request additional information if needed to evaluate the application. Executive Director shall provide copies of the Energy Commission evaluation to, and allow for public comment by interested parties
3. Executive Director shall provide a written recommendation to the Energy Commission on whether the application should be approved or denied
4. Energy Commission shall make a final decision in a publically noticed hearing



## §10-103-A

### NONRESIDENTIAL LIGHTING CONTROLS ACCEPTANCE TEST REQUIREMENTS

#### (g) Review by the Energy Commission

Energy Commission may revoke the authorization of a Certification Provider if it determines

- there is a violation of these regulations
- that a Certification Provider is no longer providing adequate certification services



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

#### (a) Scope

Mechanical Acceptance Test Technicians, Employers, and  
Certification Providers

#### (b) Industry Certification Threshold

1. Number of Certified Acceptance Test Technicians
  - A. No less than 1,000 for all tests, or
  - B. No less than 1,000 certified to complete the following tests:
    - i. NA7.5.1 Outdoor Air Ventilation Systems
    - ii. NA7.5.2 Constant Volume, Single Zone Unitary Air Conditioners and Heat Pumps
    - iii. NA7.5.4 Air Economizer Controls
    - iv. NA7.5.5 Demand Control Ventilation Systems



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

#### (b) Industry Certification Threshold, cont.

##### 1. Number of Certified Acceptance Test Technicians, cont.

##### B. No less than 1,000 certified to complete the following tests, cont.

v. NA 7.5.6 Supply Fan Variable Flow Controls

vi. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls

vii. NA7.5.10 Automatic Demand Shed Controls

##### 2. Industry Coverage by Certification Providers

- Technicians have reasonable access to training & certification
- Professional engineers, HVAC installers, mechanical contractors, TAB certified technicians, controls installation and start-up contractors, commissioning professionals ALL have opportunities to become certified technicians



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

#### (c) Qualifications and Approval of Certification Providers

1. Document organizational structure
2. Must also certify Employers
3. Document training and certification procedures
  - A. Training Scope
  - B. Mechanical Acceptance Test Technician training
    - i. Curricula
    - ii. Prequalification
    - iii. Instructor to trainee ratios
    - iv. Competency tests
    - v. Recertification procedures for Title 24, Part 6 updates



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

- (c) Qualifications and Approval of Certification Providers, cont.
  - 3. Document training and certification procedures, cont.
    - C. Employer training
    - D. Complaint procedures
    - E. Revoking certification procedures
    - F. Quality assurance, independent oversight & accountability measures
- (d) Requirements for Certification Providers to provide Annual Reports



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

(e) Interim Approval of the AABC, NEBB, TABB as Certification Providers, conditioned upon:

1. Interim approval only granted for the subset of tests listed (same as the list in (b)1.B.)
2. Submittal of application as required in 10-103-B(c)
3. Certified technicians must successfully complete Title 24, Part 6 mechanical acceptance test training
4. Certified employers must successfully complete Title 24, Part 6 mechanical acceptance test training
5. Interim approval ends July 1, 2014 or six months after the effective date of the 2013 Standards



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

#### (f) Certification Provider application review and determination

1. Energy Commission staff will review and determine the completeness of the application
2. Executive Director may request additional information if needed to evaluate the application. Executive Director shall provide copies of the Energy Commission evaluation to, and allow for public comment by interested parties
3. Executive Director shall provide a written recommendation to the Energy Commission on whether the application should be approved or denied
4. Energy Commission shall make a final decision in a publically noticed hearing



## §10-103-B

### NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST REQUIREMENTS

#### (g) Review by the Energy Commission

Energy Commission may revoke the authorization of a Certification Provider if it determines

- there is a violation of these regulations
- that a Certification Provider is no longer providing adequate certification services



## §120.5

### **REQUIRED NONRESIDENTIAL MECHANICAL SYSTEM ACCEPTANCE**

- (b) The acceptance tests shall be performed by a Certified Mechanical Acceptance Test Technician who is employed by a Certified Mechanical Acceptance Test Employer

## §130.4

### **REQUIRED NONRESIDENTIAL MECHANICAL SYSTEM ACCEPTANCE**

- (b) The acceptance tests shall be performed by a Certified Lighting Controls Acceptance Test Technician who is employed by a Certified Lighting Controls Acceptance Test Employer



# ACCEPTANCE TESTING CERTIFICATION REQUIREMENTS COMMENTS

