

## ACCEPTANCE TESTING PROGRAM 2013 Building Energy Efficiency Standards (Nonresidential)

### What is acceptance testing?

Acceptance tests demonstrate compliance with the 2013 *Building Energy Efficiency Standards* (Energy Standards) for lighting controls and mechanical systems (such as heating, ventilation, and air conditioning) in newly constructed buildings, as well as additions and alterations to existing buildings, and including equipment replacement.

### Why conduct acceptance tests?

Acceptance tests are required for code compliance. They also promote optimization of efficiency and performance for lighting and mechanical components in nonresidential buildings by helping to ensure that the equipment that was specified is operating as intended. They serve to demonstrate whether specific building components, equipment, whole systems, and interfaces between systems conform to criteria set forth in the Energy Standards. The tests are an effective tool to ensure proper installation of equipment, to meet the energy efficiency goals of owners, occupants, and the community. The benefits of properly installed systems include energy savings, extended equipment life, as well as occupant health, comfort, and safety.

### What occupancy types does acceptance testing affect?

- Offices, retail stores, factories, warehouses, schools, churches, and other nonresidential occupancy types
- Hotels and motels
- High-rise residential buildings (four stories or more)

## ACCEPTANCE TEST TECHNICIANS

### Who are Acceptance Test Technicians?

Acceptance Test Technicians (ATTs) are building specialists who are trained and certified by an Acceptance Test Technician Certification Provider (ATTCP). They are hired by ATT employers to conduct the required tests, and submit results and certificates to enforcement agencies. These employers are also required to have specialized training by a provider.

There are two types of Acceptance Test Technicians: Lighting and Mechanical 1.

Lighting Controls ATTs test:

- Demand responsive lighting controls
- Indoor occupancy sensor and lighting controls shut-off controls
- Automatic daylighting
- Outdoor motion sensor and lighting shut-off

2. Mechanical ATTs test:

- Outdoor air ventilation systems
- Supply fan variable flow controls
- Hydronic system variable flow Controls
- Air economizer controls
- Constant volume, single zone unitary air conditioner, and heat pump controls
- Demand control ventilation systems

### Why is training and certification of technicians required?

Although testing of nonresidential building systems has been a requirement since 2005, testing rates have been low due to construction trades not being uniformly familiar with testing equipment and methods. Training and certification are new requirements under the 2013 Building Energy Efficiency Standards to ensure that technicians and their employers are properly trained to conduct the acceptance tests.

### Who can become an ATT?

- Electrical contractors
- Certified general electricians
- Professional engineers
- Controls installation and startup contractors
- Certified commissioning professionals
- HVAC equipment installers
- Mechanical contractors

## ASSISTANCE FROM THE ENERGY COMMISSION

The Energy Commission is committed to help the design and building industries successfully participate in the Acceptance Testing Training and Certification program.

- **Building Energy Efficiency Standards:** To learn more about the Acceptance Testing Program, refer to the 2013 Nonresidential Compliance Manual:  
[http://www.energy.ca.gov/title24/2013standards/nonresidential\\_manual.html](http://www.energy.ca.gov/title24/2013standards/nonresidential_manual.html)
- **Acceptance Testing Webpage:** <http://www.energy.ca.gov/title24/attcp/>
- **Energy Commission Website:** [www.energy.ca.gov](http://www.energy.ca.gov)

## HELP WITH THE 2013 ENERGY STANDARDS

For assistance with understanding or locating information in the 2013 Energy Standards, contact the Energy Standards Hotline at: (800) 772-3300 (toll-free in California); (916) 654-5106 (outside California); or via email at [title24@energy.ca.gov](mailto:title24@energy.ca.gov)

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