# 2005 CERTIFICATE OF ACCEPTANCE (Part 1 of 3) LTG-1-A

| PROJECT NAME | | DATE |
|---|---|---|
| PROJECT ADDRESS | | Checked by/Date<br>Enforcement Agency Use |
| TESTING AUTHORITY | TELEPHONE | |

## GENERAL INFORMATION

| DATE OF BLDG. PERMIT | PERMIT # | BLDG. CONDITIONED FLOOR AREA | CLIMATE ZONE |
|---|---|---|---|
| BUILDING TYPE | ☐ NONRESIDENTIAL | ☐ HIGH RISE RESIDENTIAL | ☐ HOTEL/MOTEL GUEST ROOM |
| PHASE OF CONSTRUCTION | ☐ NEW CONSTRUCTION | ☐ ADDITION ☐ ALTERATION | ☐ UNCONDITIONED |

## STATEMENT OF ACCEPTANCE

This Certificate of Acceptance summarizes the results of the acceptance tests related to building mechanical requirements per Title 24, Part 6. (Sections 10-103.b, 121.f, 122.h, 125.a, 125.b, 125.c, 125.c.5, 125.d)

Please check one:

☐ I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for it's preparation; and that I am licensed in the State of California as a civil engineer or mechanical engineer, or I am a licensed architect.

☐ I affirm that I am eligible under the exemption to Division 3 of the Business and Professions Code by Section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.

☐ I affirm that I am eligible under the exemption to Division 3 of the business and Professions Code to sign this document because it pertains to a structure or type of work described pursuant to Business and Professions Code sections 5537, 5538, and 6737.1.

(These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

| TESTING AUTHORITY - NAME | SIGNATURE | DATE | LIC.# |
|---|---|---|---|
| | | | |

## INSTRUCTIONS TO APPLICANT

*For Detailed instructions on the use of this and all Energy efficiency Standards acceptance forms, please refer to the Nonresidential Manual published by the California Energy Commission.*

Part 1 of 3 - Statement of Acceptance
Part 2 of 3 - Summary of Acceptance Tests
Part 3 of 3 - Summary of Acceptance Testing Results

# 2005 CERTIFICATE OF ACCEPTANCE (Part 2 of 3) LTG-1-A

| PROJECT NAME | DATE |
|---|---|
| | |

## SUMMARY OF ACCEPTANCE TESTS

| SYSTEM ACCEPTANCE DOCUMENT (Form __ of __) | TESTING AUTHORITY | DATE OF TEST | PASS / FAIL | NOTES Bldg. Dept. Use |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*NOTE: Use additional sheets as necessary*

# 2005 ACCEPTANCE REQUIREMENTS FOR CODE COMPLIANCE

## Lighting Control Acceptance Document — LTG-2-A

**Form __ of __**

| | | |
|---|---|---|
| PROJECT NAME | | DATE |
| PROJECT ADDRESS | | Checked by/Date<br>Enforcement Agency Use |
| TESTING AUTHORITY | TELEPHONE | |
| LIGHTING CONTROL SYSTEM NAME / DESIGNATION | | |

**Intent:** Lights are turned off when not needed per 119(d) & 131(d).

## Construction Inspection

1 Instrumentation to perform test includes, but not limited to:
   a. Light meter
   b. Hand-held amperage and voltage meter
   c. Power meter

2 Occupancy Sensor Construction Inspection
   ☐ Occupancy sensor has been located to minimize false signals
   ☐ Occupancy sensors do not encounter any obstructions that could adversely effect desired performance
   ☐ Ultrasonic occupancy sensors do not emit audible sound (119a) 5 feet from source

3 Manual Daylighting Controls Construction Inspection
   ☐ If dimming ballasts are specified for light fixtures within the daylit area, make sure they meet all the Standards requirements, including "reduced flicker operation" for manual dimming control systems

4 Automatic Time Switch Controls Construction Inspection
   a. Automatic time switch control is programmed for (check all):
      ☐ Weekdays
      ☐ Weekend
      ☐ Holidays
   b. Document for the owner automatic time switch programming (check all):
      ☐ Weekdays settings
      ☐ Weekend settings
      ☐ Holidays settings
      ☐ Set-up settings
      ☐ Preference program setting
   ☐ Verify the correct time and date is properly set in the time switch
   ☐ Verify the battery is installed and energized
   ☐ Override time limit is no more than 2 hours

**Certification Statement:** I certify that all statements are true on this LTG-2-A form including the PASS/FAIL Evaluation. I affirm I am eligible to sign this form under the provisions described in the Statement of Acceptance on form LTG-1-A

Name: _____

Company: _____

Signature: _____ Date: _____

License: _____ Expires: _____

# 2005 ACCEPTANCE REQUIREMENTS FOR CODE COMPLIANCE

## Lighting Control Acceptance Document — LTG-2-A

**Form __ of __**

| PROJECT NAME | DATE |
|---|---|
| | |

| **A.** | **Select Acceptance Test** (Indicate lighting control systems Names/Designations by the applicable tests below) |
|---|---|
| ☐ **1** | Occupancy Sensor |
| ☐ **2** | Manual Daylighting Controls |
| ☐ **3** | Automatic Time Switch Controls |

| **B. Equipment Testing Requirements** | | **Applicable Lighting Control Systems** | | |
|---|---|---|---|---|
| Check and verify those items applicable to selected system: | | **1** | **2** | **3** |
| **Occupancy Sensor** - Step 1: Simulate an unoccupied condition | | | | |
| a. | Lights controlled by occupancy sensors turn off within a maximum of 30 minutes from start of an unoccupied condition per Standard Section 119(d) | Y / N | | |
| b. | The occupant sensor does not trigger a false "on" from movement in an area adjacent to the controlled space or from HVAC operation | Y / N | | |
| c. | Signal sensitivity is adequate to achieve desired control | Y / N | | |
| Step 2: Simulate an occupied condition | | | | |
| a. | Status indicator or annunciator operates correctly | Y / N | | |
| b. | Lights controlled by occupancy sensors turn on when Immediately upon an occupied condition *OR* (this requirement is mutually exclusive with Step 2.c.) | Y / N | | |
| c. | Sensor indicates space is "occupied" and lights turn on manually | Y / N | | |
| Step 3: System returned to initial operating conditions | | Y / N | | |
| **Manual Daylighting Controls** - Step 1: Manual switching control | | | | |
| a. | At least 50% of lighting power in daylit areas is separately controlled from other lights | | Y / N | |
| b. | The amount of light delivered to the space is uniformly reduced | | Y / N | |
| Step 2: System returned to initial operating conditions | | | Y / N | |
| **Automatic Time Switch Controls** - Step 1: Simulate occupied condition | | | | |
| a. | All lights can be turned on and off by their respective area control switch | | | Y / N |
| b. | Verify the switch only operates lighting in the ceiling-height partitioned area in which the switch is located | | | Y / N |
| Step 2: Simulate unoccupied condition | | | | |
| a. | All non-exempt lighting turn off per Section 131(d)1 | | | Y / N |
| b. | Manual override switch allows only the lights in the selected ceiling height partitioned space where the override switch is located, to turn on or remain on until the next scheduled shut off occurs | | | Y / N |
| c. | All non-exempt lighting turns off | | | Y / N |
| Step 3: System returned to initial operating conditions | | | | Y / N |

***Note: Shaded areas do not apply for particular test procedure***

| **C.** | **PASS / FAIL Evaluation (check one):** |
|---|---|
| ☐ | PASS: All applicable **Construction Inspection** responses are complete and all applicable **Equipment Testing Requirements** responses are positive (Y - yes) |
| ☐ | FAIL: Any applicable **Construction Inspection** responses are incomplete *OR* there is one or more negative (N - no) responses in any applicable **Equipment Testing Requirements** section. Provide explanation below. Use and attach additional pages if necessary. |
| | |

# 2005 CERTIFICATE OF ACCEPTANCE (Part 3 of 3) LTG-1-A

| PROJECT NAME | DATE |
|---|---|
| | |

## SUMMARY OF ACCEPTANCE TESTING RESULTS

| Certified | N / A | Testing Authority Certifies That: |
|---|---|---|
| Occupant & Motion Sensors | | |
| ☐ | ☐ | The occupant sensors with ultrasonic radiation as a signal for sensing occupants shall meet the requirements of Standard Section 119.d.1. |
| ☐ | ☐ | The occupant sensors with microwave radiation as a signal for sensing occupants shall meet the requirements of Standard Section 119.d.2. |
| Automatic Daylighting Controls | | |
| ☐ | ☐ | The continuous dimming control systems meet the requirements of Section 119(e). |
| ☐ | ☐ | The stepped dimming control systems meet the requirements of Section 119(e). |
| ☐ | ☐ | The stepped switching control systems meet the requirements of Section 119(e). |
| Automatic Time Switch Controls | | |
| ☐ | ☐ | The automatic time switch control devices meet the requirements of 119(c). |
| Manual Daylighting Controls | | |
| ☐ | ☐ | The manual daylighting controls meet the requirements of…… |

# 2005 CERTIFICATE OF ACCEPTANCE (Part 3 of 3) LTG-1-A

| PROJECT NAME | DATE |
|---|---|
| | |

## SUMMARY OF ACCEPTANCE TESTING RESULTS

| Certified | N / A | Testing Authority Certifies That: |
|---|---|---|
| Occupant & Motion Sensors | | |
| ☐ | ☐ | The occupant sensors with ultrasonic radiation as a signal for sensing occupants shall meet the requirements of Standard Section 119.d.1. |
| ☐ | ☐ | The occupant sensors with microwave radiation as a signal for sensing occupants shall meet the requirements of Standard Section 119.d.2. |
| Automatic Daylighting Controls | | |
| ☐ | ☐ | The continuous dimming control systems meet the requirements of Section 119(e). |
| ☐ | ☐ | The stepped dimming control systems meet the requirements of Section 119(e). |
| ☐ | ☐ | The stepped switching control systems meet the requirements of Section 119(e). |
| Automatic Time Switch Controls | | |
| ☐ | ☐ | The automatic time switch control devices meet the requirements of 119(c). |
| Manual Daylighting Controls | | |
| ☐ | ☐ | The manual daylighting controls meet the requirements of…… |

# 2005 ACCEPTANCE REQUIREMENTS FOR CODE COMPLIANCE

## Automatic Daylighting Controls Acceptance Document LTG-3-A

**Form __ of __**

| | | |
|---|---|---|
| PROJECT NAME | | DATE |
| PROJECT ADDRESS | | Checked by/Date<br>Enforcement Agency Use |
| TESTING AUTHORITY | TELEPHONE | |
| AUTOMATIC DAYLIGHTING CONTROL NAME / DESIGNATION | | |

**Intent:** Verify operation of daylighting systems meet 119(e)2.

## Construction Inspection

1 Instrumentation to perform test includes, but not limited to:
   a. Light meter
   b. Hand-held amperage and voltage meter
   c. Power meter

2 Documentation of all control devices (photocells) have been properly located including:
   a. Factory-calibrated (proof required)
      ☐ Factory-calibration certificate attached
   b. Field-calibrated
      ☐ Setpoint properly set
      ☐ Lighting threshold

3 Documentation has been provided by the installer for:
   ☐ Setpoints for each device
   ☐ Settings for each device
   ☐ Programming for each device

4 Luminaires controlled by automatic daylighting controls are only in daylit areas; and
   ☐ Separately circuited for daylit areas by windows and daylit areas under skylights

**Certification Statement:** I certify that all statements are true on this LTG-3-A form including the PASS/FAIL Evaluation. I affirm I am eligible to sign this form under the provisions described in the Statement of Acceptance on form LTG-1-A

Name: _____

Company: _____

Signature: _____ Date: _____

License: _____ Expires: _____

# 2005 ACCEPTANCE REQUIREMENTS FOR CODE COMPLIANCE

## Automatic Daylighting Controls Acceptance Document — LTG-3-A

Form __ of __

| PROJECT NAME | DATE |
|---|---|
| | |

| A. | **Control System** (check all applicable systems and list lighting control systems Names/Designations) | |
|---|---|---|
| ☐ | **1** | Continuous Dimming Control Systems |
| ☐ | **2** | Stepped Dimming Control Systems |
| ☐ | **3** | Stepped Switching Control Systems |

| **B. Equipment Testing Requirements** | | **Applicable Control System** | | |
|---|---|---|---|---|
| Check and verify those applicable to specific simulation mode: | | **1** | **2** | **3** |
| Step 1: Simulate bright conditions | | | | |
| a. | Measured lighting power at fully dimmed condition kW = | | | |
| b. | Rated lighting power at full light output kW = | | | |
| c. | Lighting power reduced by at least 50% in daylit area by windows and at least 65% in daylit areas under skylights. | Y / N | | |
| d. | Only luminaries in daylit zone are affected by daylight control | Y / N | Y / N | Y / N |
| e. | Automatic daylight control system reduces the amount of light delivered to the space uniformly | Y / N | | |
| f. | Dimming control system provides reduced flicker operation over the entire operating range per Standards Section 119(e)2. | Y / N | | |
| g. | Lumen measurements in the space, location of measurements and specific device settings, program setting and other measurements are documented | Y / N | Y / N | Y / N |
| h. | Automatic daylight control system reduces the amount of light delivered to the space relatively uniformly as per Section 131(b) | | Y / N | |
| I. | Lighting power reduced by at least 50% in daylit area by windows and at least 65% in daylit areas under skylights. | | Y / N | Y / N |
| j. | Automatic daylight control system reduces the amount of light delivered to the space per manufacturer's specifications for power level versus light level | | Y / N | Y / N |
| k. | Minimum time delay between step changes is 3 minutes to prevent short cycling | | Y / N | |
| l. | Lighting power reduction is at least 50% under fully switched conditions per Standards Section 119(e)1 | | | Y / N |
| m. | Single- or multiple-stepped switching controls provide a dead band of at least three minutes between switching threshold to prevent short cycling | | | Y / N |
| Step 2: Simulate dark conditions | | | | |
| a. | Dimming control system provides reduced flicker operation over the entire operating range per Standards Section 119(e)2. | Y / N | Y / N | |
| b. | Lumen measurements in the space, location of measurements and specific device settings, program setting and other measurements are documented | Y / N | Y / N | Y / N |
| c. | Automatic daylight control system increases the amount of light delivered to the space uniformly | Y / N | Y / N | Y / N |
| d. | Minimum time delay between step changes is 3 minutes to prevent short cycling | | Y / N | |
| e. | Single- or multiple-stepped switching controls provide a dead band of at least three minutes between switching threshold to prevent short cycling | | | Y / N |
| Step 3: System returned to initial operating conditions | | Y / N | Y / N | Y / N |

| **C. PASS / FAIL Evaluation (check one):** | |
|---|---|
| ☐ | PASS: All applicable **Construction Inspection** responses are complete and all applicable **Equipment Testing Requirements** responses are positive (Y - yes) |
| ☐ | FAIL: Any applicable **Construction Inspection** responses are incomplete *OR* there is one or more negative (N - no) responses in any applicable **Equipment Testing Requirements** section. Attach additional pages with explanation. |