

**DOCKETED**

<b>Docket Number:</b>	13-ATTCP-01
<b>Project Title:</b>	Acceptance and Training Certification
<b>TN #:</b>	228855
<b>Document Title:</b>	NLCAA Application 12th Amendment
<b>Description:</b>	This document contains the 12th amendment to the NLCAA application. The document has the amendment, the strike out and underlined version of changes and clean version of changes.
<b>Filer:</b>	Brianna Kadar
<b>Organization:</b>	National Lighting Contractors Associaton of Amercia (NLCAA)
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	6/27/2019 1:24:53 PM
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## TWELTH AMENDMENT

*... to the APPLICATION FOR APPROVAL OF NLCAA, (THE NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA), AS A LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER.*

Changes:

- Full Application:
  - Footer:
    - Updated application to “Rev 5”
    - New Date
    - Page numbers and attachment numbers updated to reflect new clean copy of the application
  - Updated Code Sections
  - Changes to utilize “ATT” and “ATE” instead of other variations of the words
  - Cleaned up language
- Page 1:
  - Simplified to remove old code references
- Page 2:
  - Changed “become” to “renew its status as a certified.”
  - Removed sections to simplify and remove references to old code
  - Added “ATE” to definition of a Certified Lighting Controls Acceptance Test Technician Employer
- Pages 3-4:
  - Replaced the “Overview of Document Contents” to properly reflect new page numbers and placed all page numbers in order
- Page 5:
  - Removed redundant information that will be detailed later in the document
  - Added lines to reflect NLCAA will follow all code, state and federal requirements.
  - Updated description of applicant notification and appeal if they are denied. Now no form is required for a simpler appeal process.
- Page 6:
  - Cleaned up the language
  - Updated step to the ATE Certification to reflect they must complete and pass the training and testing
  - Moved the ATE Associate Contract to be done after the training and testing
    - They sign the contract stating they understand their responsibilities and obligations, so they won’t know this until after the course.
- Page 7:
  - Cleaned up the language
  - Added the option for ATE to provide the company FEIN if they do not have a business license or business tax certificate for when approving businesses in cities that do not require business licenses or those out of state.

- Added requirements that ATE must
  - have 3 years of experience in lighting controls and electrical distribution systems
  - submit Identification and applicable licenses and certifications
  - provide previous ATT/ATE number if any
    - Will not be allowed to become an ATT/ATE if decertified by another ATTCP
- Added a 6-month time limit to complete training or ATE application will be deleted to avoid applicants being in the system for an extended period of time
- Removed Audit information (moved to Attachment 5 “Oversight Procedures”)
- Removed ATE course material information (course material is addressed later in document and in Attachment 3)
- Page 8:
  - Updated Title of Attachments 2 and 3
  - Removed redundant test information – found in “Tests” section later in document
- Page 9:
  - Updated Title of Attachment 2
- Page 10:
  - Removed lab specification information
    - All technical lab specifications are contained in Appendix 1 – Laboratory Descriptions.
  - Added NLCAA testing software to where lab data may be inputted. ATTs will either use lab forms for their labs or will complete the labs utilizing the software to get experience with it.
  - Removed redundant information
  - Removed charge for the ATT course – All fees are listed in the fee schedule, Appendix 3
  - Removed the ATT Associate Contract from the ATT prequalification process (to be signed after course)
  - Removed questionnaire and prerequisite information from Step 1 – Experience Verification is Step 2 and prerequisites information is in Step 3
- Page 11:
  - Added information of what applicant must submit in the application
  - Added that applicant will not be allowed to become an ATT/ATE if decertified by another ATTCP
  - Removed documentation listed that NLCAA does not need to collect in the ATT application
  - Added questionnaire information to Step 2
  - Updated prerequisite URL and courses required
- Page 12:
  - Added that the Executive Director or BOD will review ATT applicant experience if they are using Military Experience, Prior Certification, or Degree Earned to meet the requirements.
    - Removed line that details can be found in Attachment 8. (Attachment was removed)
  - Removed the ATT Associate Contract from the ATT prequalification process (to be signed after course)
  - Added summary of steps to receive ATT certification
  - Added ATT and ATE Application and Course Time Schedule to avoid applicants from being in the NLCAA system and not approved for an extended period of time
  - Updated Instructor and Trainee Ratios for labs to eighteen students. The CET Training Consultant, after reviewing the class, and the Executive Director, after teaching the class, feel that this ratio can be comfortably managed. Lecture and labs will now have same student-instructor ratios.

- Removed “previously described” line – Test information was deleted earlier in the document
- Updated minimum test score from 70% to 75% to be more in line with industry standards.
- Updated test process to taken and recorded by paper and/or electronic format – Test usually done electronically, but on paper if there ever happens to be any system and/or internet issues
- Page 13:
  - Added an ATT/ATE Annual Renewal Process – NLCAA will ensure that all ATT and ATE information is updated every year to remain up to date
  - Combined paragraphs about ATT and ATE recertification to remove redundancy
  - Changed score from 19 correct responses to “75%” to match the format of ATT/ATE test information and increase the minimum score to be more in line with industry standards.
  - Changed requirement for ATT/ATE to sign the Associate Contract before the recertification course to after the course.
- Page 14:
  - Removed information on “Acceptance Test Code Update Training”
  - Added Recertification quotes from Code
  - Removed “Acceptance Test Code Update Training” and changed minimum length of recertification training to 2 hours
  - Removed old recertification due date
  - Removed fees – all fees on fee schedule, Appendix 3
  - Added steps for recertification
  - Removed redundant test information
  - Removed information on the Continuously Dimmed Closed-Loop Daylighting System demonstration
    - All ATE Curriculum is outlined in Attachment 3
  - Removed redundant ATE Associate Contract Information
  - Removed fees – all fees on fee schedule, Appendix 3
- Page 15:
  - Updated language to show quote from Code about the ATE course
  - Removed description of the ATE Curricula – Curriculum Outline is shown in Attachment 3
  - Removed Complaint Procedures information – Complaint Procedures in Attachment 7
  - Added line that Complaint form is attached to the document
  - Removed list of possible disciplinary actions – actions will be decided by the BOD on a case-by-case scenario
  - Removed fees – all fees on fee schedule, Appendix 3
  - Removed list of reasons that complaint proceedings could be initiated – reasons shown in Complaint procedures, Attachment 7
  - Added line verifying that a list of revoked certifications will be made available to the CEC and ATTCPS and all inactive certifications will be posted on the NLCAA website
  - Added that ATT/ATE can surrender their certification via telecommunications
- Page 16:
  - Updated the CET Training Consultant information
  - Added that the NCAA website has a public place to submit any comments, complaints or suggestions to allow for quality assurance
    - Removed the Building Department Survey Form
  - Updated who provides “expert review” of the curricula to a subject matter expert
    - Old names removed

- Updated “Form review” to “Desk Audit”
  - Changed to only one Desk Audit with multiple triggers – removed “Audit Procedure Form Review”, “Complaint Procedure Form Review<sup>1</sup>”, “Disciplinary Form Review<sup>1</sup>”, and “Random Form Review<sup>1</sup>”
- Added line that completing audits at project level meet the code compliance form requirements
- Page 17:
  - Removed “Audit Procedure Form Review” and “Random Form Review<sup>1</sup>”
  - Removed fees – all fees on fee schedule, Appendix 3
  - Removed circumstances for a Field Inspection – information shown on the Oversight Procedures, Attachment 5
  - Updated Field Inspection notification from First Class mail to telecommunications
  - Added that inspection will be done by an NLCAA approved inspector
  - Removed “Audit Procedure Field Inspection<sup>1</sup>”, “Random Field Inspection<sup>1</sup>”, “Complaint Procedure Field Inspection<sup>1</sup>” and “Disciplinary Field Inspection<sup>1</sup>” – Only one “Field Inspection” with multiple triggers
  - Removed Random Field Inspection process – Process shown in Oversight Procedures, Attachment 5
  - Removed fees – all fees on fee schedule, Appendix 3
  - Removed Refresher Training – NLCAA will not have a free online refresher course
  - Corrected description of what the ATT/ATE Certification number stands for
  - Updated language to show that NLCAA website will show whose certifications are “active” or “inactive”
  - Combined ATT/ATE Certification number descriptions
    - Removed old description of ATE numbers
  - Removed fees – all fees on fee schedule, Appendix 3
  - Added line that the NLCAA annual report will meet requirements of 10-103.1(d)
    - Removed list of everything that would be included on the annual report
- Page 18:
  - Updated language
- Removed old Signature Page
- Attachment 1 - Bylaws:
  - Added training, certification and oversight of ATT/ATEs to list of objectives and purpose
  - Updated BOD number to “a minimum of” three to allow us to bring more people in
  - Added that number of BOD members can be changed by approval of the BOD to allow for greater flexibility of adding new members
  - Changed annual meeting from third of August to the month of February – allows BOD to meet at the beginning of each new year to review annual renewals and/or recertification
  - Updated how the board is notified of meetings – telecommunications is more convenient for the BOD than First Class Mail
  - Updated initial BOD members to current members
  - Updated signature from old Secretary to new Executive Director
- NLCAA Audit Form
  - Removed
  - NLCAA will now conduct Desk Audits by reviewing the NRCA forms only. Desk Audit Form was redundant information.

- Attachment 4 - Oversight Procedures
  - Replaced with an updated version
    - Cleaned up language
    - Changed the triggers to be more in line with the code requirements
    - Updated timeline of the process to allow for timely submission and completion
    - Added detailed description of the Field Inspection and triggers.
    - Changed the way NLCAA determines a random sample for Desk Audits and Field Inspections
      - Rather than a human process, NLCAA will utilize software to generate the random numbers
- Attachment 5 – Complaint Form
  - Replaced with an updated version
    - Cleaned up language
    - Updated to show the form that the ATT and/or ATE will see when a complaint is filed against them.
    - Form directed to ATT/ATE instead of the Complainant
    - Complainant information removed to protect their identity
    - Added ATT and ATE information requirements
    - Removed proposed solution – to be determined by the BOD
    - Added contact info for the ATT/ATE to respond
- Attachment 6 – Complaint Procedures
  - Replaced with an updated version
    - Cleaned up language
    - Updated timeline of the process to allow for timely submission and completion
    - Changed notification process from certified mail to telecommunications
- Prequalification based on Military Experience, Certification, or Degree Earned
  - Removed – Will be determined by the BOD
- ACCEPTANCE TEST TECHNICIAN Pre-qualification Warning Form
  - Removed – NLCAA will notify applicant by telecommunications if they do not qualify for the ATT or ATE course
- ACCEPTANCE TEST TECHNICIAN Pre-qualification Appeal Form
  - Removed – The ATT/ATE applicant can appeal via telecommunications
- Attachment 7 – ATE Associate Contract and Attachment 8 – ATT Associate Contract
  - Replaced with an updated version
    - Cleaned up language
    - Updated Contract to reflect that the ATE/ATT applicant will follow all NLCAA polices and Code requirements
- Building Department Survey Form
  - Removed – NLCAA website has a public place to post any comments, complaints or suggestions
- NLCAA Random Selection Process
  - Removed – New Random Process shown in the Oversight Procedures, Attachment 5

- Appendix 2 – Definitions
  - Cleaned up language
  - Updated to reflect new application changes
    - Removed “Audit Procedure Field Inspection”
    - Added “Field Inspection” Definition
    - Changed “Audit Procedure Form review” to “Desk Audit”
    - Removed Audit and Complaint Procedure – shown in other attachments
    - Added definition for “Complaint Form”
    - Removed “Form Review”
    - Removed redundant “Field Inspection” Definition
    - Updated definitions for Suspended and Revoked
    - Added definition for “Surrendered”, “Active”, “Inactive” and “Pseudo Random Number Generator (PRNG)”
- Appendix 3 – Fee Schedule
  - Removed items that no longer exist:
    - Acceptance Test Code Update Training
    - Disciplinary Training
    - Refresher Training
    - Audit Procedure Process
    - Audit Procedure Form Review
    - Random Form Review
    - Disciplinary Form review
    - Complaint Procedure Form Review
    - Complaint Procedure Field Inspection
    - Audit Procedure Field Inspection
    - Disciplinary Field Inspection
  - Added specification that Recertification Training price is based on “online” training
  - Reduced online Recertification training price to \$150
  - Updated “Complaint Procedure Form Review” to “Desk Audit”
  - Changed “Random Field Inspection” to “Field Inspection”
  - Added charge for an Annual Renewal late penalty payment fee
  - Added charge for a Complaint fee

To:

The California Energy Commission  
1516 Ninth Street  
Sacramento, California

From:

NLCAA  
3301 E. Hill Street, Suite 408  
Signal Hill, California

**TITLE**

*APPLICATION FOR APPROVAL OF NLCAA, (THE NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA), AS A LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER.*

**DESCRIPTION**

Submission to the California Energy Commission to Certify NLCAA, (The National Lighting Contractors Association of America), as a LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER as defined in section ~~§ 10-102 DEFINITIONS~~, per The 2013~~9~~ Building Energy Efficiency Standards, per ~~§ 10-103-A~~; as required to train persons for duties described in ~~§ 130.4 (c)~~, and to further provide certification of individuals to meet the definitions of ~~§ 10-102 ACCEPTANCE TEST TECHNICIAN, LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN, and § 10-102 ACCEPTANCE TEST EMPLOYER, LIGHTING CONTROLS ACCEPTANCE TEST EMPLOYER~~ and to further certify LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIANS as FIELD TECHNICIANS as defined by ~~§ 10-102 DEFINITIONS~~.

~~§ 10-103.1-A (a) Scope.~~

NLCAA recognizes and verifies that as a Certification Provider it must abide by the requirements of: ~~§ 10-103.1 -A; (and/or as required by § 10-103.1, [of the 2016 Building Energy Efficiency Standards])~~

~~§ 10-103-A.1 (b) 2. Industry Coverage by Certification Providers – “... certification costs~~

**...” NOTICE: NLCAA reserves the right to reduce or waive any charges specified by this document or shown in Appendix 3: Fee Summary.**



To Whom it may Concern:

## ABSTRACT

The National Lighting Contractors Association of America, (NLCAA), proposes to renew its status as a certified ~~become a~~ Lighting Controls Acceptance Test Technician and Lighting Controls Acceptance Test Employer provider by submitting an application as specified in ~~§§10-103-A (e)(1).1(c)~~ of the 2013~~9~~ Building Energy Efficiency Regulations and adhering to the specifications outlined in this document conforming to the 2013~~9~~ Building Energy Efficiency Regulations - ~~§§10-103-A (c)(1)-(3).1(c)-(g)~~. ~~including documentation included to demonstrate that the certification of Field Technicians and Employers shall include training and testing on the Building Energy Efficiency Standards lighting control acceptance testing procedures and the Building Energy Efficiency Standards acceptance testing compliance documentation for lighting control systems.~~

In addition: The National Lighting Contractors Association of America, (NLCAA), will provide information meant to demonstrate the ability to provide “reasonable access to certification” per ~~§ 10-103-A (b) 2,~~ both within and outside the confines of section 10-103-A (c) B. (iii).

In addition: The National Lighting Contractors Association of America, (NLCAA), will provide information meant to demonstrate the ability to “Provide Annual Reports” per ~~§ 10-103-A (d).~~

Within the confines of this document, the Lighting Controls Acceptance Test Technician and Lighting Controls Acceptance Test Employer Certification Provider shall be deemed to be NLCAA – referred to variably as the “National Lighting Contractors Association of America” or “NLCAA”. Within the confines of this document the business entity of California Electrical Training, Inc., 3301 E. Hill Street, Suite 408, Signal Hill, CA, shall be variably referred to as: “California Electrical Training” or “CET”.

Within the confines of this document, a Certified Lighting Controls Acceptance Test Technician shall be referred to variably as: “AT Technician” or “ATT” or “Acceptance Test Technician” or “Field Technician”.

Within the confines of this document, a Certified Lighting Controls Acceptance Test Technician Employer shall be referred to variably as: “ATT Employer” or “ATE” or “Acceptance Test Technician Employer” or “Acceptance Test Employer” or “Employer” or “Lighting Controls Acceptance Test Employer”.

Within the confines of this document, a Lighting Controls Acceptance Test Technician Certification Provider may be referred to as an “ATTCP”.

Within the confines of this document, the California Energy Commission may be referred to as the “CEC”.

~~For the purposes of this document: “lab”, “laboratories”, or “labs” shall refer to “hands-on experience” or “hands-on” as referred to in the 2013 Building Energy Efficiency Standards; § 10-103-A (c) 3. A. and/or § 10-103-A (c) 3. B. (ii) respectively. Additionally, “lab” demonstrations may be viewed by Acceptance Test Technician Employer candidates.~~

## Overview of Document Contents

Scope.....	Page 1
Organizational Structure.....	Page 6, Attachment 1
<b>Industry Coverage by Certification Provider – Reasonable Access to:</b>	
Course Material/Class Availability .....	Page 5
Certification Prequalification .....	Page 5
Field Technician Prequalification .....	Pages 12, 13, 14
ATT Employer Prequalification.....	Page 6, Page 7
Field Technician Training Scope .....	Page 9
ATT Employer Training Scope .....	Page 17
<b>Field Technician Training</b>	
Overview .....	Page 9
Instructor to Trainee Ratio.....	Page 14
Curricula.....	Page 9, Page 10, Attachment 2
Hands-on Training.....	Page 11, Appendix 1
Tests.....	Page 9, Page 14
<b>ATT Employer Training</b>	
Overview .....	Page 6, Page 17
Instructor to Trainee Ratio.....	Page 14
Curricula.....	Page 18, Page 19
Demonstration(s).....	Page 17
Tests.....	Page 14, Page 17
Certification Status and Verification: Field Technicians.....	Page 31
Certification Status and Verification: ATT Employers.....	Page 31
Recertification.....	Page 15, Page 16

Certification Suspension ..... Page 21, Page 23, Page 24

Certification Revocation..... Page 21, Page 22, Page 23, Page 24

Complaint Procedures.....Page 20, Page 21, Page 22

**Quality Assurance and Accountability**

Independent Oversight of the Acceptance Test Training and Certification Process..... Page 25

Expert Review of Training Curricula.....Page 26

Oversight of Field Technicians by ATT Employers..... Page 8

Audit Procedure ..... Page 8, Attachment 5

Audit Form .....Page 8, Attachment 4

Support of Field Technicians by ATT Employers .....Page 8

Oversight of Acceptance Testing Certification Processes and Procedures..... Page 25

Building Department Surveys ..... Page 25

Audit Procedure Form Reviews.....Page 26, Page 27, Attachment 5

Complaint Procedure Form Reviews.....Page 21, Page 22, Page 26

Random Form Reviews .....Page 26, Page 27

Disciplinary Forms Reviews..... Page 21, Page 22, Page 26, Page 27

Visits to Building Site(s)..... Page 21, Page 22, Page 28, Page 29, Page 30

Audit Procedure Field Inspection.....Page 28

Complaint Procedure Field Inspection.....Page 21, Page 22, Page 28

Disciplinary Field Inspection.....Page 21, Page 22, Page 30

Refresher Training..... Page 31

Recertification Training..... Page 15, Page 21, Page 22

Repeat Training.....Page 21, Page 22

Disciplinary Training.....Page 21, Page 22

Annual Reports/Data Entry Software..... Page 32/Page 31

**Summary**.....Page 33

<u>Scope</u>	<u>Page 1</u>
<u>Abstract</u>	<u>Page 2</u>
<u>Table of Contents</u>	<u>Page 3-4</u>
<u>Reasonable Access to Class Availability</u>	<u>Page 5</u>
<u>Organizational Structure</u>	<u>Page 6, Attachment 1</u>
<u>ATE Course Material</u>	<u>Page 6</u>
<u>Steps to Receive ATE Certification</u>	<u>Page 6</u>
<u>Requirements for Certification of ATEs</u>	<u>Page 7</u>
<u>ATT Training Scope</u>	<u>Page 8, Attachment 2</u>
<u>ATT Curricula</u>	<u>Page 9, Attachment 2</u>
<u>ATT Hands-on Training</u>	<u>Page 10, Appendix 1</u>
<u>ATT Prequalification</u>	<u>Page 10-12</u>
<u>Steps to Receive ATT Certification</u>	<u>Page 12</u>
<u>ATT/ATE Time Schedule</u>	<u>Page 12</u>
<u>Instructor to Trainee Ratio</u>	<u>Page 12</u>
<u>Tests</u>	<u>Page 12</u>
<u>ATE/ATT Annual Renewal</u>	<u>Page 13</u>
<u>Recertification</u>	<u>Page 13-14</u>
<u>ATE Training Scope</u>	<u>Page 14</u>
<u>ATE Course Description</u>	<u>Page 15</u>
<u>Complaint Procedures</u>	<u>Page 15, Attachment 6</u>
<u>Procedures for Revocation and Surrender</u>	<u>Page 15</u>
<u>Independent Oversight</u>	<u>Page 16</u>

<u>Quality Assurance and Accountability</u>	<u>Page 16</u>
<u>Field Inspection Description</u>	<u>Page 17</u>
<u>ATT/ATE Certification Status and Verification</u>	<u>Page 17</u>
<u>Annual Reports</u>	<u>Page 17</u>
<u>Summary</u>	<u>Page 18</u>
<u>Bylaws of NLCAA</u>	<u>Attachment 1</u>
<u>ATT Course Curriculum Outline</u>	<u>Attachment 2</u>
<u>ATE Course Curriculum Outline</u>	<u>Attachment 3</u>
<u>Oversight Procedures</u>	<u>Attachment 4</u>
<u>Complaint Form</u>	<u>Attachment 5</u>
<u>ATT/ATE Complaint Procedures</u>	<u>Attachment 6</u>
<u>ATE Associate Contract</u>	<u>Attachment 7</u>
<u>ATT Associate Contract</u>	<u>Attachment 8</u>
<u>Lab Specifications</u>	<u>Appendix 1</u>
<u>Definitions</u>	<u>Appendix 2</u>
<u>NLCAA Fee Schedule</u>	<u>Appendix 3</u>

“... The Certification Provider(s) shall provide reasonable access to certification ... class availability”

NLCAA herewith provides their pledge to provide reasonable access to all pre-qualified potential participants in the Lighting Controls Acceptance Test Technician certification program and all pre-qualified potential participants in the Lighting Controls Acceptance Test Employer certification program. “Reasonable access” shall include, (but not be limited to): Printed copies of course materials, “live” “slide-shows” of course material, online access of course materials, classroom lectures on course material, electronic copies of course materials, hard copy video versions of course materials, hard copy video versions of course material “slide-shows”, hard copy videos of lectures on course materials, and hard copy or downloadable multi-media presentations of course material and online streaming versions of course materials including “webinars” as specified in § 10-103-A (c) C.; Printed quizzes, online quizzes, electronic copies of quizzes, verbal quizzes in a classroom setting, and hard copy or downloadable multimedia quizzes; Secure and timed online testing of course material, and printed and proctored testing on course material in a classroom setting; Hands on “labs” or exercises, live “lab” demonstrations, online videos or slide shows of “lab” demonstrations, hard copy video versions of video recordings of “lab” demonstrations or “slide-shows” of “lab” demonstrations, and hard copy or live interactive (“webinar”) versions of “lab” demonstrations, or downloadable multimedia demonstrations of “labs”. Additionally, if circumstances require, training may be provided by actual testing of lighting control installations or through the use of an Energy Commission approved “challenge test” as described in section 13.11.1 of the 2013 Nonresidential Compliance Manual for the 2013 Building Energy Efficiency Standards. NLCAA will abide by all Code requirements per Section 10-103.1. NLCAA will follow all state and federal anti-discriminatory requirements.

If denied, the applicant will be notified by phone or telecommunications. the applicant can appeal via written response and it will be reviewed and voted on by a minimum of three members of the Board of Directors.

#### “reasonable access”

The pre-qualification procedures will not be denied to any applicant based on: Gender identity, Race or ethnicity, Religious persuasion, Country of origin, Native language, Educational background, or Political beliefs or affiliations. Affiliation or membership in any union, collective bargaining group or association will not be an impediment to an applicant’s pre-qualification. The pre-qualification procedures will not be denied to any applicant based on any physical or mental infirmity unless opined by NLCAA or their agents or proxies that said physical or mental infirmity will prevent said applicant from fulfilling their obligations under § 130.4 (c). †

† Any applicant denied the pre-qualification procedure for any reason other than work history will be supplied a non-binding “warning” form signed by a director of NLCAA or their agent or proxy, additionally a “Pre-qualification Appeal” form will be presented to said applicant simultaneously, which they may submit either physically or electronically. (see Attachment 9) †

~~† Note: If applicant files an appeal form, (see Attachment 10), they will be considered motivated enough to be admitted to the course and upon successful completion will have proved NLCAA, their agents or proxies incorrect and will be granted certification.~~

~~“This NLCAA evaluation examination may be administered as ‘Secure and timed online testing of course material ...’ as outlined on Page 05 of this document.”~~

A detailed description of the criteria and review process used by the ATTCP, (NLCAA), to determine the relevance of technician professional experience shall be presented under ~~§§ 10-103.1-A(c) 3 B. (iii) –~~ Prequalification.

~~§§ 10-103.1-A (c)~~ **Qualifications and Approval of ATTCPs Certification Providers.**

This document will constitute the written application for NLCAA, and shall include a summary and any related background documents as attachments to this document.

~~§§ 10-103-A.1 (c) 1.~~ **Requirements for Applicant ATTCPs to Document Organizational Structure.**

The requirements of ~~§§ 10-103-A.1 (c) 1.~~ Shall be met by the appending of Attachment 1, “Bylaws of National Lighting Contractors Association of America”.

Supervision, and support of the acceptance test training and certification process shall be supplied through independent oversight by the Training Consultant for California Electrical Training as detailed in the portion of this application addressing: 10-103-A.1 (c) 3 F. **Quality Assurance and Accountability.**

~~§§ 10-103-A (c) 2.1~~ **Requirements for Certification of Employers ATEs.** “certification”

The course material provided by NLCAA supports three goals in training ~~Acceptance Test Technician Employers ATEs:~~

- 1) To find and understand specific information in the four code reference documents – The (current) Building Energy Efficiency Standards regarding their responsibilities, an overview of the design and compliance process and the mandatory lighting controls that must be installed, the (current) Appliance Efficiency Regulations, the (current) Reference Appendices Testing procedures, and the (current) forms ~~other than the Acceptance Testing Forms.~~
- 2) To have a basic understanding of the Acceptance Tests ~~the Acceptance Test Technician Employer must perform and demonstrate~~ a basic understanding of how to fill out and verify the Acceptance Testing Forms.
- 3) ~~To understand the Their~~ responsibilities of the ATE to the State of California and to NLCAA in signing Acceptance Testing forms.

Additional training material for Acceptance Test Employers will be detailed under ~~§§ 10-103-A.1 (c) 3. C. – Lighting Controls Acceptance Test Employer ATE Training.~~

The steps in ~~Lighting Controls Acceptance Test Employer~~ to receive the ATE certification are as follows:

- 1) Prequalification (~~§ 10-103-A (c) B. (iii)~~)
- 2) Payment of training fees and signing NLCAA ~~Lighting Controls Acceptance Test Technician Employer Associate contract (see Attachment 11)~~
- 3) Successful completion and passing of tTraining and testing
- 4) Sign the ATE Associate contract (see Attachment 7)



~~§§10-103-A (c) 2.1 Requirements for Certification of Employers ATEs. “certification” Prequalification (§§10-103-A (c) B. (iii))~~

~~“Participation in the technician (Employer) certification program shall be limited to persons....”~~

Conforming to the standards of NLCCA, “Participation in the (employer) certification program shall be limited to persons” described, (and not excluded or rejected), by the following requirements:

The ATE applicant must meet the following requirements:

**Requirements for the Employer Application:**

- If the ~~employer~~ ATE applicant or any of the owners, officers or partners of the employer had a contractor license or business license suspended or revoked any time in the last five years, they are not eligible to become an NLCAA Employer ATE.
- If the ~~employer~~ ATE applicant or any of the ~~its~~ owners, officers or partners ~~has~~ has ever been found liable in a civil suit or found guilty in a criminal action for fraud, theft, or any other acts of dishonesty, they are not eligible to become an NLCAA Employer ATE.
- The ~~employer~~ ATE applicant must have applicable business license(s), ~~or~~ business tax certificate(s) number or a company FEIN ~~for all offices that are registering to employ acceptance test technicians.~~
- ~~NLCAA Employers~~ The ATE applicant must have a comprehensive general liability insurance policy with a policy limit of at least \$1,000,000.
- ~~NLCAA Employers~~ The ATE applicant must have workers compensation insurance and provide a copy with the application; where otherwise required by existing State or Federal law.
- The ATE applicant must have a minimum of three years of verifiable experience in lighting controls and electrical distribution systems as determined by the ATTCP.

Applicants will provide their personal contact info, company info, if any, and submit the required documents.

Applicants must provide a copy of a government issued ID; this may include a State issued identification Card, Driver’s License, Military identification card or Passport.

Applicants must state all licenses and certifications they have that apply and upload the supporting documentation. This may include, but not limited to, a CA Electrician Certification or a C-10 Contractor’s License.

Applicants must confirm if they have ever been certified by an ATTCP before. If so, applicant will provide their ATT/ATE Number. If the applicant was decertified by another ATTCP, they will not be allowed to become an NLCAA ATT or ATE.

NLCAA shall store uploaded supporting documents in the candidate’s folder on the NLCAA secure server. If the ATE applicant does not complete training within 6 months of making payment, the application and all supporting documents will be deleted.

- ~~NLCAA Employers must have completed the online NLCAA Lighting Controls Acceptance-Test Technician Employer application~~

~~§ 10-103-A (c) 2. Requirements for Certification of Employers. "... oversight of Acceptance Test Employers to ensure quality control and appropriate supervision ... for Acceptance Test Technicians"~~

Oversight of Acceptance Test Technician EMPLOYERS and their FIELD TECHNICIANS, (as defined in § 10-102), is provided through the Audit Procedure, (Attachment 5), and Audit Form, (Attachment 4). Both parties are required to fill out the form together. This ensures that Acceptance Test Technician EMPLOYERS and their FIELD TECHNICIANS maintain communication through the years. The Audit Form is filled out for a specific job. The Audit Form requires input regarding the types of lighting controls installed and their locations as identified on the Acceptance Forms. Additionally, some data values are required — as well as "Yes / No / I Don't Know" responses. This form shall have its data values compared against the data values entered on the Acceptance Testing Form(s) for the job in question by a computer "expert system" or human agent. If a discrepancy is detected between the Audit Form and Acceptance Testing Form(s) data values — the parties in question shall be contacted via telecommunications<sup>4</sup>, (if practical), by an NLCAA director, or NLCAA agent, or by the CET training consultant. Should the response(s) of the aforementioned Acceptance Test Technician Employer(s) and/or Acceptance Test Technician(s), (Field Technician(s)), be deemed unsatisfactory by the aforementioned NLCAA director, or NLCAA agent, or the CET training consultant — then the Audit Field Inspection<sup>4</sup> process shall be set in motion per the NLCAA Audit procedure. (§ 10-103-A (c) 3. F. "Quality assurance ...")

~~§ 10-103-A (c) 2.1(c)3F. Requirements for Certification of Employers-ATEs.~~

The Audit Process: The Audit form in its present state is appended as attachment 4, (Audit Form).

The Audit Oversight Procedure is appended as a Attachment 4, (Audit Oversight Procedures).

~~§ 10-103-A (c) 2. Requirements for Certification of Employers. "support for Acceptance Test Technicians"~~

Support for Acceptance Test Technicians will be aided by the inclusion of extra material into the Lighting Controls Acceptance Test Technician Employer course covering recommended equipment required by their Field Technicians. This course material will include: Equipping Field Technician(s) with — appropriate light meters; appropriate directional, dimmable light sources of proper technology; appropriate voltmeters, ammeters, or multi-meters as required. This course material will include: Safety training for working on combination "high" and "low" voltage systems; Test equipment ratings; Lock-out/tag-out procedures. Every effort will be made to impart the complexity of certain acceptance testing procedures to the Lighting Controls Acceptance Test Technician Employer to aid in properly bidding jobs and allowing the Lighting Controls Acceptance Test Technician sufficient time to properly complete testing procedures.

~~§~~ 10-103-A.1 (c) 3. **Requirements for Applicant ATTCPs to Document Training and Certification Procedures.**

~~Acceptance Test Technician Employer Training Course manual and materials — Rev02~~

~~Lighting Controls Acceptance Test Technician Course manual and materials — Rev02~~

Acceptance Test Technician Course Curriculum Outline: Attachment 2

Acceptance Test Employer Course Curriculum Outline: Attachment 3

~~§~~ 10-103-A.1 (c) 3. **A. Training Scope.**

~~Lighting Controls Acceptance Test Technician Course — Rev02~~

Theoretical training such that Acceptance Test Technicians demonstrate their ability to apply the Building Energy Efficiency Standards acceptance testing and documentation requirements shall include (but not be limited to): The Acceptance Test Technician Course Curriculum ~~Material made public by the dissemination techniques detailed previously as:~~

~~“... The Certification Provider(s) shall provide reasonable access to certification ... class availability”~~

~~The quizzes shall be of varying length and consist of multiple choice type questions with four answers of which one and only one is the correct response.~~

~~The examination shall be 50 questions in length and consist of multiple choice type questions with four answers of which one and only one is the correct response. An applicant achieving a score of 35 correct responses shall be deemed to have passed the written or interactive examination. A passing score on the examination is required for certification.~~

~~§~~ 10-103-A.1 (c) 3 B. (i) **Curricula**

Theoretical training topics shall include, (but not be limited to), the topics presented in Attachment 2: “Lighting Controls Acceptance Test Technician Class Course Curriculum Outline”.

Additionally, the NLCAA Lighting Controls Acceptance Test Technician course of instruction shall meet or exceed the requirements of: ~~§~~ 10-103-A.1 (c) 3 B. (ii) **Hands-on training**

~~§§ 10-103.1-A(c) 3-B-(i)~~ **Curricula.**

**Lighting Controls Acceptance Test Technician Training.**

The Lighting Controls Acceptance Test Technician course of instruction as outlined in Attachment 2: "~~Lighting Controls Acceptance Test Technician Class~~ Course Curriculum Outline"; shall meet the following requirements:

The NLCAA Acceptance Test Technician Certification Provider training curricula for Lighting Control Acceptance Test Technicians shall include, but not be limited to, the analysis, theory, and practical application of the following per §10-103.1(c)3-B-(i):

- a) Lamp and ballast systems;
- b) Line voltage switching controls;
- c) Low voltage switching controls;
- d) Dimming controls;
- e) Occupancy sensors;
- f) Photosensors;
- g) Demand responsive signal inputs to lighting control systems;
- h) Building Energy Efficiency Standards required lighting control systems;
- i) Building Energy Efficiency Standards required lighting control system-specific analytical/problem solving skills;
- j) Integration of mechanical and electrical systems for Building Energy Efficiency Standards required lighting control installation and commissioning;
- k) Safety procedures for low-voltage retrofits (<50 volts) to control line voltage systems (120 to 480 volts);
- l) Accurate and effective tuning, calibration, and programming of Building Energy Efficiency Standards required lighting control systems;
- m) Measurement of illuminance according to the Illuminating Engineering Society's measurement procedures: (IESNA Lighting Handbook)
- n) Building Energy Efficiency Standards acceptance testing procedures, and;
- o) Building Energy Efficiency Standards acceptance testing compliance documentation for lighting controls.

~~§§ 10-103-A.1(c) 3 B. (ii) Hands-on training~~

~~Hands-on training to practice and certify competency in the technologies and skills necessary to perform the acceptance tests shall be supplied by laboratories which allow illuminance data to be collected and analyzed to provide proper values for entry on acceptance testing forms: NRCA-LTI-03-A and NRCA-LTI-04-A.~~

~~The laboratories allow measurements to be taken on the following simulated scenarios:~~

- ~~1) — Continuously Dimmed Closed-Loop Daylighting System~~
- ~~2) — Four Stage, Step-Switched, Open-Loop Daylighting System~~
- ~~3) — Five-Room Building with Demand Response System (that works)~~
- ~~4) — One-Room Warehouse with Demand Response System (that fails)~~

~~Additional hands-on training to practice and certify competency in the technologies and skills necessary to perform the acceptance tests shall be supplied by laboratories which allow visual observations to be used to provide proper entries on acceptance testing forms: NRCA-LTI-02-A and NRCA-LTI-02-A.~~

- ~~5) — Automatic Time Switch (Indoor) with Part-OFF Occupancy Sensor and Override~~
- ~~6) — Automatic Time Switch (Outdoor) Program Verification and Demonstration~~

~~The estimated total time for completion of all laboratories is 4 hours.~~

~~Labs 2), 3), and 4) are combined to one “Lab stand<sup>1</sup>”; as are labs 5) and 6). Maximum time allowed to complete labs confined to one “Lab stand<sup>2</sup>” is 60 minutes.~~

~~The technical specifications for all hands-on lab exercises are contained in Appendix 1 – Laboratory Descriptions.~~

~~Completed labs must have proper data entered correctly on the lab form and/or NLCAA Testing Software as applicable. Failed labs may be reattempted twice with permission of NLCAA. Laboratories must be satisfactorily completed for certification of a student.~~

~~The technical specifications for all laboratories is contained in Appendix 1 – Laboratory Descriptions~~

~~The laboratory instruction and lab sheets will be contained in the course material submitted for the NLCAA Lighting Controls Acceptance Test Technician Course.~~

~~“... reasonable access to certification ... considering factors such as certification costs commensurate with the complexity of the training being provided, prequalification criteria, class availability, and curriculum.”~~

~~The charge for the NLCAA Lighting Controls Acceptance Test Technician Certification course of instruction is: \$1500.<sup>00</sup>~~

§ 10-103-A.1 (c) 3 B. (iii) **Prequalification**

**Lighting Controls Acceptance Test Technician Training Candidate Prequalification.**

The prequalification procedure for the NLCAA ~~Lighting Controls Acceptance Test Technician~~ ATT Training course consists of three steps.

- 1) Submission of an application for approval to take the course of instruction.
- 2) Verification of “at least three years of verifiable professional experience and expertise in lighting controls and electrical systems as determined by the Lighting Controls ATTCP ...”, (NLCAA).
- 3) Successful completion of the prerequisite online courses~~†~~.

~~Upon successfully completing (to the satisfaction of NLCAA) all of the steps above: Candidates must sign a Lighting Controls Acceptance Test Technician Training Associate, ATTCP, (NLCAA), contract establishing that they agree to, and are aware of, any financial or physical obligations they will have to the ATTCP, (NLCAA), and to the State of California, as a Lighting Controls Acceptance Test Technician. Candidates for NLCAA Lighting Controls Acceptance Test Technician certification must present proof of successful completion of the prerequisite online courses† prior to beginning training.~~

**Step 1)**

~~Candidates for prequalification must fill out an online, “Application for NLCAA Technician ATT Certification” which includes a questionnaire requesting lighting controls experience, (both initial and most recent date), for the following categories of lighting controls:~~

- a) ~~Occupancy Sensors and Photosensors;~~
- b) ~~Low Voltage and Line Voltage Dimming;~~
- c) ~~Demand Response Systems;~~
- d) ~~Time-based Scheduling Systems;~~
- e) ~~Indoor Lighting Controls;~~
- f) ~~Outdoor Lighting Controls~~

~~† “Preliminary online courses” are: The Lighting Controls Association, [www.lightingcontrolsassociation.org]; “Education Express” courses – currently located at: [http://aboutlightingcontrols.org/education].~~

~~Courses EE-101; EE-102 §1, §2; EE-103 §1, §2; EE-105; EE-110; EE-201 (70% to Pass)~~

In addition, applicants must state whether they are:

- A) Electrical Contractors;
- B) State Certified General Electricians;
- C) Professional Engineers;
- D) Commissioning Professionals;
- E) Controls Installation and Startup Contractors;
- F) Qualifying Military Veterans;
- G) Qualifying Certified Individuals;
- H) Individuals Holding an Engineering or Science Degree

The ability to upload supporting documents to NLCAA for the above is provided.

Applicants will provide their personal contact info, company info, if any, and submit the required documents.

Applicants must provide a copy of a government issued ID; this may include a State issued identification Card, Driver's License, Military identification card or Passport.

Applicants must state all licenses and certifications they have that apply and upload the supporting documentation. This may include, but not limited to, a CA Electrician Certification or a C-10 Contractor's License.

Applicants must confirm if they have ever been certified by an ATTCP before. If so, applicant will provide their ATT/ATE Number. If the applicant was decertified by another ATTCP, they will not be allowed to become an NLCAA ATT or ATE.

NLCAA shall store uploaded supporting documents in the candidate's folder on the NLCAA secure server. If ATT applicant does not complete training within 1 year of making payment, the application and all supporting documents will be deleted.

NLCAA will review each application to verify the following: attached License, Certificate, Professional Engineer License, copy of DD-214 (or equivalent), copy of State or Federal certification, Transcript, Diploma, or Certificate of training — (as applicable), (see Attachment 8). Commissioning Professional documentation and/or Controls Installation and Startup documentation shall be a letter from one or more manufacturers of lighting controls stating that the individual in question works for them, or a third party approved by them, and is qualified to commission, or to install and start up, their lighting control products. Anyone failing to produce proper documentation will not be eligible for certification as a Lighting Controls Acceptance Test Technician.

## Step 2)

Verification of “at least three years of verifiable professional experience and expertise in lighting controls and electrical systems as determined by the Lighting Controls ATTCP ...”, must be supplied by the applicant to NLCAA in a form deemed acceptable.

Applicants will fill out a questionnaire requesting a description and breakdown of their experience in lighting controls and electrical systems.

The applicant will confirm the number of hours and/or years of experience they have in the following areas and type their name verifying all information submitted is true and accurate.

- Manual Controls (Switches)
- Multi-Level Controls (Dimming, Alternating Lamps, A/B Switching)
- Shut-Off Controls (Occupancy Sensor, Time Clock, EMCS)
- Daylighting Controls (Daylight Sensors)
- Demand Response (Load Shedding)
- EMCS (Lighting Controls Systems)
- Electrical Lighting Systems (Power, Control and Communication)

## Step 3)

Proof of Successful completion of prerequisite online courses† is required prior to beginning the course of training.

† “Preliminary Prerequisite online courses” are: The Lighting Controls Association, [www.lightingcontrolsassociation.org]; “Education Express” courses - currently located at: [~~http://aboutlightingcontrols.org/education-~~  
http://aboutlightingcontrols.org/EducationExpress/].

Courses EE-101; EE-102 ~~§§1, §2~~; EE-103 ~~§§1, §2~~; EE-105 ~~§§1-4~~; EE-110; EE-201 ~~§§1-3~~ (70% to Pass)



Individuals applying to NLCAA for ~~Lighting Controls Acceptance Test Technician~~ ATT Training by virtue of Military Experience, Prior Certification, or Degree Earned may use this professional experience to *partially* fulfill the "... three years of verifiable professional experience and expertise in lighting controls and electrical systems" requirement.

This experience will be reviewed on a case-by-case scenario by the Executive Director and/or members of the BOD.

~~Details may be found in Attachment 8, "Prequalification based on Military Experience, Certification, or Degree Earned".~~

~~Prior to beginning training: prequalified NLCAA Lighting Controls Acceptance Test Technician Training Candidates must read, review and sign the "NLCAA Lighting Controls Acceptance Test Technician Associate Contract" (Attachment 12). NLCAA Lighting Controls Acceptance Test Technician Training Candidates must state that they are aware of any additional physical or monetary burdens they will face in the future as NLCAA Certified Lighting Controls Acceptance Test Technicians.~~

The steps to receive the ATT certification are as follows:

- 1) Prequalification
- 2) Payment of training fees
- 3) Successful completion and passing of training and testing
- 4) Sign the ATT Associate Contract (see Attachment 8)

#### **ATT and ATE Application and Course Time Schedule**

The ATT and/or ATE application must be approved within three months of submittal or it will be deleted. The applicant must make payment for the course within three months of approval or the application will be deleted.

Upon receipt of payment, the ATE course will be available for six months and/or the ATT applicant will have one year to complete the ATT course. If the course is not completed in time, the ATE and/or ATT application will be deleted, there will be no refunds issued and the applicant will be responsible to reapply.

#### **§10-103-1A(c) 3. B. (iv) Instructor to Trainee Ratio**

To ensure integrity and efficacy of the curriculum and program, the personal experience of the CET Training Consultant suggests that a ratio of no more than ~~18~~ eighteen students per instructor is to be allowed for lectures and examination procedures – this applies to both the Lighting Controls Acceptance Test Technician curriculum and the Lighting Controls Acceptance Test Employer curriculum.

In the personal experience of the CET Training Consultant a ratio of no more than ~~9~~ eighteen students per instructor is to be allowed for overseeing the laboratory exercises which are part of the Lighting Controls Acceptance Test Technician curriculum.

~~§~~§10-103-1A (c) 3 B. (v) **Tests**

~~As previously described under §10-103-A(c) 3. A. Training Scope.~~

Lighting Controls Acceptance Test Technician candidates shall pass a 50-question multiple-choice examination to achieve certification – in addition to successful completion of hands-on training. A ~~70~~75%, or greater, score on this examination will be required to pass the examination.

Also;

~~In addition to the requirements of: § 10-103-A(c) C. Lighting Controls Acceptance Test Employer Training:~~

Lighting Controls Acceptance Test Employer candidates shall pass a 27-question multiple-choice examination to achieve certification. A ~~70~~75%, or greater, score on this examination will be required to pass the examination.

Tests will be taken and recorded via paper and/or electronic format.

~~“This NLCAA evaluation examination may be administered as ‘Secure and timed online testing of course material ...’ as outlined on Page 05 of this document.”~~

ATT/ATE Annual Renewal

To remain an active ATT and/or ATE, they must confirm all information and documents provided to NLCAA are up to date and correct between December 1st-January 30<sup>th</sup> each year.

If the information is not verified and/or updated documents are not received by the due date, the ATT/ATE will be placed on an immediate, temporary suspension. They will be placed back in active status once NLCAA receives the required information and a late penalty payment per the fee schedule.

~~§~~§10-103.1-A (c) 2. A. B. (vi) **Recertification**

Regardless of the original date of certification of an ATT or ATE ~~a Lighting Controls Acceptance Test Technician, (Field Technician), (as defined in §10-102 Title 24, Part 1 DEFINITIONS, of the 2013 current Building Energy Efficiency Standards),~~ recertification shall be required each time the Building Energy Efficiency Standards is updated with new and/or modified acceptance test requirements. In addition, NLCAA Directors may, at their discretion, require recertification when a new Building Energy Efficiency Standards is released as part of the “code cycle” process.

~~Regardless of the original date of certification of a Lighting Controls Acceptance Test Employer, (as defined in §10-102 Title 24, Part 1 DEFINITIONS, of the 2013 current Building Energy Efficiency Standards),~~ recertification shall be required each time the Building Energy Efficiency Standards is updated with new and/or modified acceptance test requirements. In addition, NLCAA Directors may, at their discretion, require recertification when a new Building Energy Efficiency Standards is released as part of the “code cycle” process.

Both ATTs and ATEs ~~Lighting Controls Acceptance Test Technicians, (Field Technicians), and Lighting Controls Acceptance Test Employers~~ must pass an examination of (27) questions in length which consists of multiple-choice-type questions with four answers of which one and only one is the correct response. A participant achieving a score of 75% ~~(49) correct responses~~ shall be deemed to have passed the written or interactive examination. A passing score on the examination is required for recertification. “This NLCAA evaluation examination may be administered as ‘Secure and timed online testing of course material ...’ ~~as outlined on Page 05 of this document.”~~

~~Prior to beginning~~ After completion of the recertification training<sup>4</sup>: qualified NLCAA ATT ~~Lighting Controls Acceptance Test Technician~~ Training recertification candidates must read, review and sign the “NLCAA Lighting Controls Acceptance Test Technician Associate Contract” (Attachment 8 12). NLCAA ATT ~~Lighting Controls Acceptance Test Technician~~ Training Candidates must state that they are aware of any additional physical or monetary burdens they will face in the future as NLCAA ATTs ~~Certified Lighting Controls Acceptance Test Technicians~~. The signing of this “NLCAA Lighting Controls Acceptance Test Technician Associate Contract” will render any previously signed and dated “NLCAA Lighting Controls Acceptance Test Technician Associate Contract” null and void. The NLCAA ATTs ~~Lighting Controls Acceptance Test Technician~~ shall be assumed to be operating under the current contract and any predated “NLCAA Lighting Controls Acceptance Test Technician Associate Contract(s)” shall be considered null and void.

~~Prior to beginning~~ After completion of the recertification training<sup>4</sup>: qualified NLCAA ATE ~~Lighting Controls Acceptance Test Employer~~ Training recertification candidates must read, review and sign the “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” (Attachment 11 7). NLCAA ATE ~~Lighting Controls Acceptance Test Employer~~ Training Candidates must state that they are aware of any additional physical or monetary burdens they will face in the future as NLCAA ATEs ~~Certified Lighting Controls Acceptance Test Employers~~. The signing of this “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” will render any previously signed and dated “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” null and void. The NLCAA ATEs ~~Lighting Controls Acceptance Test Technician Employers~~ shall be assumed to be operating under the current contract and any predated “NLCAA Lighting Controls Acceptance Test Employer Associate Contract(s)” shall be considered null and void.

~~If, (in the opinion of the majority of Directors of NLCAA) —“... each time the Building Energy Efficiency Standards (are) updated with new and/or modified acceptance test requirements.”— is occurring with excessive frequency, or that changes are too insubstantial, to require “Recertification” under § 10 103-A (c) B. (vi)—NLCAA certified Lighting Controls Acceptance Test Technicians, or NLCAA certified Lighting Controls Acceptance Test Technician Employers shall not be required to undergo “Recertification Training<sup>3</sup>”: Said NLCAA certified persons shall, rather, undergo “Acceptance Code Update Training<sup>3</sup>”.~~

~~“Acceptance Code Update Training<sup>3</sup>” will not require the signing of a new “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” or “NLCAA Lighting Controls Acceptance Test Technician Associate Contract”. Acceptance Code Update Training<sup>3</sup> may/or may not require a quiz to complete.~~

~~NLCAA reserves the right to present either: “Acceptance Code Update Training<sup>3</sup>” or “recertification training<sup>3</sup>” by any avenue presented to address:~~

~~“... The Certification Provider(s) shall provide reasonable access to certification ... class availability”~~

"Recertification. The ATTCP shall recertify all ATEs (and ATTs) prior to the implementation of each adopted update to the Building Energy Efficiency Standards as these updates affect the acceptance test requirements. Recertification requirements and procedures shall only apply to those specific elements that are new or modified in future updates to Building Energy Efficiency Standards."

Recertification Training will be based on “... each time the Building Energy Efficiency Standards (are) updated with new and/or modified acceptance test requirements.”

~~The anticipated minimum length of recertification training<sup>3</sup> is & two hours — (minimum)~~

~~The anticipated length of Acceptance Code Update Training<sup>3</sup> is 2 hours —(minimum)~~

~~NLCAA, or their agents or proxies, shall allow until March 15<sup>th</sup> 2017 for their Field Technician or Employer associates to complete the Online Acceptance Code Update Training<sup>3</sup> for the 2016 “Code Cycle”. Failure to complete the Online Acceptance Code Update Recertification Training<sup>3</sup> by this time the due date will result in NLCAA instituting a Complaint Procedure<sup>3</sup> against the offending party or parties.~~

~~“... (re)certification costs commensurate with the complexity of the training being provided ...”~~

~~The charge for recertification training and examination shall be \$400.00~~

~~The charge for Acceptance Code Update Training shall be \$150.00~~

The ATT and ATE will be recertified under the most recent code cycle change once they have:

- 1) Completed and passed Recertification training
- 2) Signed a new ATT and/or ATE Contract
- 3) Conformed with all applicable policies as deemed by the NLCAA BOD

~~§~~10-103-1A (c) 3. C. Lighting Controls Acceptance Test Employer Training.

~~§~~10-103-1A (c) 3. A. Training Scope.

~~Acceptance Test Technician Employer Training – “REV02”~~

Theoretical training such that Acceptance Test Technicians Employers demonstrate their understanding of the Building Energy Efficiency Standards acceptance testing and documentation requirements shall include (but not be limited to), ~~course material provided by methods listed to address the~~ Acceptance Test Employer Course Curriculum:

~~“... The Certification Provider(s) shall provide reasonable access to certification ... class availability”~~

~~The quizzes shall be of varying length and consist of multiple choice type questions with four answers of which one and only one is the correct response.~~

~~The examination shall be 27 questions in length and consist of multiple choice type questions with four answers of which one and only one is the correct response. An applicant achieving a score of 19 correct responses shall be deemed to have passed the written or interactive examination. A passing score on the examination is required for certification. “This NLCAA evaluation examination may be administered as ‘Secure and timed online testing of course material ...’ as outlined on Page 05 of this document.”~~

Theoretical training topics shall include, (but not be limited to), the topics presented in Attachment 3: “Acceptance Test Technician Employer Class Course Curriculum Outline”

~~Practical training such that Acceptance Test Technicians Employers demonstrate their understanding of the Building Energy Efficiency Standards acceptance testing and documentation requirements shall include (but not be limited to), a demonstration which allows the collection of illuminance data to be observed and analyzed to provide proper values for entry on acceptance testing form: NRCA LTI 03 A. The demonstration generates measurements taken on the following simulated scenario:~~

1) ~~Continuously Dimmed Closed Loop Daylighting System~~

~~Prior to beginning certification training: prequalified NLCAA Lighting Controls Acceptance Test Employer Training certification candidates must read, review and sign the “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” (Attachment 11). NLCAA Lighting Controls Acceptance Test Employer Training Candidates must state that they are aware of any additional physical or monetary burdens they will face in the future as NLCAA Certified Lighting Controls Acceptance Test Employers.~~

~~“... reasonable access to certification ... considering factors such as certification costs commensurate with the complexity of the training being provided, prequalification criteria, class availability, and curriculum.”~~

~~The charge for the NLCAA Lighting Controls Acceptance Test Technician Employer Certification course of instruction is: \$650.<sup>00</sup>~~

~~§§ 10-103.1-A(c) 3. C. Lighting Controls Acceptance Test Employer Training.~~

~~"... instruction that covers the scope and process of the acceptance tests in Building Energy Efficiency Standards, Section 130.4"~~

~~Theoretical training topics shall include, (but not be limited to), the topics presented in Attachment 3: "Acceptance Test Employer Class Outline".~~

~~The ATE Course "shall consist of a single class or webinar consisting of at least four hours of instruction that covers the scope and process of the acceptance tests in Building Energy Efficiency Standards, Section 130.4."~~

~~§ 10-103-A (c) 3. C. Curricula.~~

~~The NLCAA Acceptance Test Employer Certification Provider training curricula for Lighting Control Acceptance Test Employers shall include, but not be limited to, the analysis, theory, and practical application of the following:~~

~~{130.4(a)}~~

~~Building Energy Efficiency Standards required lighting control systems: Building Energy Efficiency Standards Sections; 10-103 (a), 130.1, 130.2, 140.6 (a), 140.6 (a) 1., 140.6 (a) 2., 140.6 (b) 3., 140.6 (d) and the 2012 Appliance Efficiency Regulations Section: 1605.3 (f) (2)~~

~~1. Certifying that plans, specifications, installation certificates, and operating and maintenance information meet the requirements of part 6 (for acceptance testing): Building Energy Efficiency Standards Sections; 130.4 (a), 130.4 (b), 140.6 (a) 2., 140.6(d), 130.0 (d), 110.9 (a), 110.9 (b) — Forms; NRCC-LTI-01-E, NRCC-LTI-02-E, NRCC-LTO-01-E, NRCC-LTO-02-E, NRCI-LTI-02-E, NRCI-LTO-02-E, NRCI-LTI-05-E~~

~~2. Completing all applicable procedures in Reference Nonresidential Appendix NA7.6, NA7.7, and NA7.8: Forms; NRCA-LTI-02-A, NRCA-LTI-03-A, NRCA-LTI-04-A, NRCA-LTO-02-A~~

~~3. Certifying that Automatic Daylight Controls comply with Section 130.1 (d) and Reference Nonresidential Appendix NA7.6.1 Acceptance Testing and submitting Acceptance Form NRCA-LTI-03-A;~~

~~4. Certifying that lighting shut OFF Controls comply with Section 130.1 (c) and Reference Nonresidential Appendix NA7.6.2 Acceptance Testing and submitting Acceptance Form NRCA-LTI-02-A;~~

- ~~a) Occupancy sensors;~~
- ~~b) Automatic Time Switches;~~
- ~~c) Power adjustment factor for large open-plan offices;~~

~~5. Certifying that demand responsive lighting control systems comply with Section 130.1 (e) and Reference Nonresidential Appendix NA7.6.3 Acceptance Testing and submitting Acceptance Form NRCA-LTI-04-A.~~

~~6. Certifying that outdoor lighting control systems comply with Section 130.2 (a) and 130.2 (c) and Reference Nonresidential Appendix NA7.8 Acceptance Testing and submitting Acceptance Form NRCA-LTO-02-A;~~

~~{130.4(b)}~~

~~1. Verifying that when a lighting control system is installed to comply with lighting control requirements in part 6, that the appropriate Installation Form is present and complete;~~

~~2. Verifying that when an Energy Management Control System is installed to comply with lighting control requirements in part 6, that the appropriate Installation Form is present and complete;~~

~~{130.4(c)}~~

~~Completing Certificate of Acceptance documentation in accordance with Building Energy Efficiency Standards Section 10-103 (a) 4. and information from Sections 10-102, 10-103 A, and 110.9 will be presented.~~

NLCAA Application to the CEC — Rev 04 — 8/11/14 — Page: 19

#### ~~§§ 10-103.1-A(c) 3. D. Complaint Procedures~~

~~“... Procedures for accepting ... complaints regarding the performance of any certified acceptance test technician or employer”~~

~~The NLCAA Complaint Form, (Attachment 6), may be transmitted to NLCAA, an agent, or proxy, in writing or by E-mail. Additionally an interactive NLCAA Complaint Form is present on the NLCAA website for use by concerned individuals.~~

~~“... explain how building departments and the general public will be notified of these (complaint) procedures ...”~~

~~When an authorized party is granted access to the results of Acceptance Testing on the NLCAA database server, a Portable Document Format file representing the State Acceptance Testing Compliance Form will be generated for download. Appended to this file download will be a copy of the NLCAA Complaint Form and Complaint Procedure in Portable Document Format, (pdf), rendering it immediately accessible to the authorized parties. Authorized parties may view a list of Field Technicians and Employers who have had their certifications suspended or revoked due to complaint proceedings.~~

~~“... Procedures for addressing ... complaints regarding the performance of any certified acceptance test technician or employer”~~

A copy of the NLCAA Complaint Form, (Attachment 5), is amended to this document.

A copy of the NLCAA complaint procedure, (Attachment 6), is appended to this document. ~~Upon receipt of a Complaint Form generated by the offended party, (including any Director of NLCAA), the Complaint Process shall be set in motion.~~

~~Step 1: A Complaint Form is received, (or generated by), NLCAA or their agent.~~

~~Step 2: Within 3 business days of Complaint Form receipt, (or generation), by NLCAA or their agent; a notification, (including the contents of the Complaint Form), shall be sent to the Lighting Controls Acceptance Test Employer(s) and /or Technician(s) concerned. This notification shall be sent by both: e-mail and certified mail.~~

~~Step 3: The ATT Employers or AT Technicians notified shall respond within 20 business days of the receipt of the Complaint Notification. This response shall be in writing.~~

~~Step 4: Once the written responses are received—a committee of 3 NLCAA Directors will determine what, (if any), disciplinary action(s) will be invoked.~~

~~As a courtesy to other Acceptance Test Technician Certification Providers an e-mail shall be transmitted to them if appropriate when Field Technicians or Employers have not complied with complaint-procedure disciplinary actions within the time frame allowed.~~

~~A disciplinary action spreadsheet will be made available online for perusal by CEC staff.~~

NLCAA Application to the CEC – Rev 04 – 8/11/14 – Page: 20

~~Disciplinary Actions can include the following, (or a combination of the following):~~

- ~~1) NLCAA directs ATT Employer(s) and AT Technician(s) to complete, (one or more as specified within “Step 4” of the Complaint Process), Audit Form(s) per the Audit Procedure Process for any prior or subsequent jobs as desired by NLCAA.~~
- ~~2) NLCAA informs ATT Employer(s) and/or AT Technician(s) that, (one to six as specified within “Step 4” of the Complaint Process), “Form Review(s)<sup>3</sup>” will be accomplished, with applicable charges.~~
- ~~3) NLCAA directs ATT Employer(s) and/or AT Technician(s) that, (one to ten as specified within “Step 4” of the Complaint Process), “Disciplinary Form Review(s)<sup>3</sup>” will be accomplished, with applicable charges.~~
- ~~4) NLCAA directs ATT Employer(s) and/or AT Technician(s) to complete, (one or more as specified within “Step 4” of the Complaint Process), “Complaint Procedure Field Inspection(s)<sup>3</sup>” with applicable charges.~~
- ~~5) NLCAA directs ATT Employer(s) and/or AT Technician(s) to complete, (one or more as specified within “Step 4” of the Complaint Process), “Disciplinary Field Inspection(s)<sup>3</sup>” with applicable charges.~~
- ~~6) NLCAA directs ATT Employer(s) and/or AT Technician(s) to complete “Recertification Training<sup>3</sup>”, (§ 10-103-A (c) B. (vi) **Recertification**), with applicable charges.~~



~~7) NLCAA directs ATT Employer(s) and/or AT Technician(s) to complete "Repeat Training"<sup>1</sup>, (§ 10-103-A (c) C. or § 10-103-A (c) B.), with applicable charges up to original certification training fee.~~

~~8) NLCAA directs ATT Employer(s) and/or AT Technician(s) to complete "Disciplinary Training"<sup>1</sup>, with applicable charges.~~

~~9) NLCAA informs ATT Employer(s) and/or AT Technician(s) that their certification status is "suspended"<sup>1</sup> for a period of up to 5 months, or until "Disciplinary Training"<sup>1</sup>, with applicable charges, is successfully completed. Suspension status for those involved will be posted on the NLCAA website.~~

~~10) NLCAA directs ATT Employer(s) and/or AT Technician(s) they have been deemed unsuitable as an associate of NLCAA and, (pending a ruling of any written appeal, ("Step 5" of the Complaint Process)), they will have their Lighting Controls Acceptance Test Technician and/or Employer certifications revoked.~~

~~A summary of findings and recommended disciplinary actions shall be sent, via certified mail, to the ATT Employer(s) and/or AT Technician(s) in question within 20 business days.~~

~~Step 5) Upon receipt of NLCAA's findings: the ATT Employer(s) and/or AT Technician(s) in question shall have 20 business days to appeal the decision of NLCAA regarding any disciplinary action recommended. This appeal shall be in writing.~~

~~Step 6) Within 15 business days of receiving the appeal from the ATT Employer(s) and/or AT Technician(s) in question, NLCAA shall render a final disposition on the matter which may include any, (or none), of the disciplinary measures outlined in "Step 4", of the complaint procedure, above.~~

NLCAA Application to the CEC – Rev 04 – 8/11/14 – Page: 21

~~Upon final disposition by NLCAA, the ATT Employer(s) and/or AT Technician(s) in question shall have 60 days to comply with NLCAA's disciplinary actions specified. Satisfactory compliance shall be determined by the directors of NLCAA. Failure to comply with NLCAA's specified disciplinary actions may lead to certification revocation procedures or to NLCAA generating a fresh complaint against the ATT Employer(s) and/or AT Technician(s) in question. Appropriate notifications shall be sent to the California Energy Commission in accordance with Building Energy Efficiency Standards Section 10-103-A (d).~~

~~"... whether in their entirety certification costs (are) commensurate with the complexity of the training being provided ..."~~

~~The charge for an Audit Procedure Process is: Nothing; \$0~~

~~The charge for a Complaint Procedure Form Review<sup>1</sup> is: \$150.<sup>00</sup>~~

~~The charge for a Disciplinary Form Review<sup>1</sup> is: \$200.<sup>00</sup>~~

~~The charge for a Complaint Procedure Field Inspection<sup>1</sup> is: \$500.<sup>00</sup>~~

~~The charge for a Disciplinary Field Inspection<sup>1</sup> is: \$1500.<sup>00</sup> per day~~

The charge for Recertification<sup>4</sup> Training is: \$400.<sup>00</sup>

The charge for Repeat Training<sup>4</sup> is: up to \$650.<sup>00</sup> for ATT Employers, up to \$1500.<sup>00</sup> for AT Technicians

The charge for Disciplinary<sup>4</sup> Training\* is: \$2000.<sup>00</sup>

\*The length of Disciplinary Training<sup>4</sup> is 4 days.

#### ~~§ 10-103-A (c) E.~~ **Certification Revocation Procedures**

~~Certification Revocation Procedures are initiated through the NLCAA Complaint Process, ( § 10-103-A (c) D. **Complaint Procedures** ). NLCAA directors or their agents may initiate a Complaint Procedure involving any ATT Employer(s) and/or AT Technician(s) holding NLCAA certifications.~~

~~Complaint proceedings may be initiated against any ATT Employer(s) and/or AT Technician(s) holding NLCAA certifications for reasons including, (but not limited to):~~

~~Poor quality work, (including, but not limited to);~~

~~Erratic or incorrect Acceptance Testing Form entries,~~

~~Use of substandard equipment, material or techniques leading to Acceptance Testing errors,~~

~~Using incorrect analysis techniques leading to Acceptance Testing errors,~~

~~Ineffective work, (including, but not limited to);~~

NLCAA Application to the CEC — Rev 04 — 8/11/14 — Page: 22

~~Failure to use NLCAA Acceptance Testing Data Entry Software without a compelling reason, or without written permission from NLCAA,~~

~~Incomplete Acceptance Testing Form entries,~~

~~Incomplete Acceptance Testing procedures,~~

~~Damage to equipment without restoring, repairing, or replacing same,~~

~~Damage to building structure, fixtures, or furnishings without restoring, repairing, or replacing same,~~

~~Modifying program settings in equipment without restoring original settings,~~

~~Chronic failure to appear at jobsite(s) within scheduled periods,~~

~~Failure to perform Acceptance Tests;~~

~~Falsification of documents, (including but not limited to);~~

~~Falsification of “check off” items,~~

Falsification of data entries,

Signing for another Field Technician or Acceptance Test Employer; or signing as a "Responsible Person" without proper credentials; or signing for a "Responsible Person" without proper authorization.

Knowingly allowing another Field Technician or Acceptance Test Employer to sign for you,

Failure to comply with the documentation requirements of, (including but not limited to) Building Energy Efficiency Standards: Sections: 10-103 (a); 10-103-A; or Title 24 parts 1 or 6 (including but not limited to);

Failure to test all specified lighting controls on **Compliance** Form: NRCC-LTI-02-E,

Failure to test all specified lighting controls on **Compliance** Form: NRCC-LTO-02-E,

Failure to verify specified lighting control system or EMCS entries on **Installation** Form: NRCC-LTI-02-E,

Failure to verify specified lighting control system or EMCS entries on **Installation** Form: NRCC-LTO-02-E,

Or;

Other specified actions deemed to require a Complaint Form filing by NLCAA.

ATT Employer(s) and/or AT Technician(s) in question, facing suspension or revocation of certification through final disposition in the Complaint Procedure shall be informed via certified mail. Upon proof of delivery: NLCAA, (director, agent or proxy), shall institute the certificate suspension and revocation procedure within 3 business days.

NLCAA Application to the CEC – Rev 04 – 8/11/14 – Page: 23

### §§ 10-103.1-A(c) 3. E. Certification Revocation Procedures

Continued ...

Upon exhaustion of the appeal process contained within the Complaint Procedure, (Attachment 7), the ATT Employer(s) and/or AT Technician(s) in question, (if facing suspension<sup>1</sup> or revocation of certification<sup>2</sup>), may contact NLCAA by telecommunications<sup>3</sup> within 3 business days of receiving notice of imminent suspension of, or revocation of, certification status as described in the paragraph above. This will be the last chance for the ATT Employer(s) and/or AT Technician(s) to present a compelling argument against their certification suspension or revocation. This last communication between the NLCAA and the ATT Employer(s) and/or AT Technician(s) shall not extend beyond the 3 business day period mentioned previously in this paragraph. The burden to contact NLCAA, (director or agent), as described in this paragraph shall lie entirely upon the ATT Employer(s) and/or AT Technician(s) in question.

The ATT Employer(s) and/or AT Technician(s) ATT and/or ATE NLCAA Associate Contract, (Attachment 11-7 or Attachment 12-8, as applicable), will be considered null and void after 3 three business days from NLCAA receiving proof of delivery of the certification revocation notice to the ATT Employer(s) and/or ATE Technician(s) in question unless special accommodations have been made.

Any Arbitration agreement signed by ATT Employer(s) and/or ATE Technician(s) who have had their certification revoked or suspended shall be considered to remain binding, valid, and in effect.

~~When an ATT Employer and/or AT Technician has had their certification suspended or revoked, notice shall be made to the CEC and all other currently approved Lighting Controls ATTCPs via certified mail as soon as practical. A list of all persons with certifications revoked, suspended, or surrendered shall be posted on the NLCAA website for public purview.~~

A list of all ATTs and/or ATEs with revoked certifications will be made available to CEC staff or ATTCPs upon request and they will be listed as inactive on the NLCAA website

~~§~~ 10-103.1-A(c) 3. E. **Certification ... Procedures** – Surrender of Certification

Any ATT Employer(s) and/or AT Technician(s) working under an NLCAA Associate Contract may surrender their respective certifications with NLCAA whenever they choose. Notice must be given to NLCAA in writing or via telecommunications. The ATT Employer(s) and/or AT Technician(s) NLCAA Associate Contract, (Attachment ~~11~~ 7 or Attachment ~~12~~ 8, as applicable), will be considered null and void immediately upon NLCAA receiving notice of certification surrender.

Any Arbitration agreement signed by ATT Employer(s) and/or AT Technician(s) who have surrendered their certification shall be considered to remain binding, valid, and in effect.

~~When an ATT Employer and/or AT Technician have surrendered their certification, notice shall be made to the CEC and all other currently approved Lighting Controls ATTCPs via certified mail as soon as practical.~~

A list of all ATTs and/or ATEs with surrendered certifications will be made available to CEC staff or ATTCPs upon request and they will be listed as inactive on the NLCAA website

~~§~~ 10-103.1-A(c) 3. F. **Quality Assurance and Accountability**

~~“The ATTCP shall describe ... how their certification business practices include ... independent oversight and accountability measures ...”~~

Independent oversight of the Lighting Controls ATTCP, (NLCAA), will be conducted by California Electrical Training, (CET). This oversight will be conducted ~~TBA~~ by the current Training Consultant associated with California Electrical Training. NLCAA, (the ATTCP), shall be responsible to ~~TBA~~ the CET Training Consultant who will oversee the development of, and reasonable access to, course material developed by the CET Training Consultant or others. NLCAA Directors shall be accountable to ~~TBA~~ the CET Training Consultant in the following manner(s):

- 1) ~~TBA~~ The CET Training Consultant may demand, at his discretion, that NLCAA ATTCP training material be modified, discarded, replaced, or augmented at any time. NLCAA shall have ~~60~~ sixty calendar days to reply to this request and must show proof to ~~TBA~~ the CET Training Consultant that said training material has been modified in the training material dissemination process.
- 2) ~~TBA~~ The CET Training Consultant shall reserve the right to inspect and approve any initial changes to course material prior to expert review of the training curricula.
- 3) ~~TBA~~ may, at his discretion, demand a vote of NLCAA directors for the removal of one of their number.

~~“... independent oversight of the certification processes and procedures ...”~~

Independent oversight of the Lighting Controls ATTCP, (NLCAA), certification processes and procedures will be conducted by California Electrical Training through the offices of ~~TBA~~ the CET Training Consultant. See CET website ([www.californiaelectricaltraining.com](http://www.californiaelectricaltraining.com)) for the current Training Consultant.

~~TBA~~ The CET Training Consultant shall ensure that the ATTCP, (NLCAA), abides by the requirements of the Building Energy Efficiency Standards Sections 10-103.1-A(c) and 10-103-A(d), as detailed in this application required by Section 10-103-A(e).

Any variance from this application ~~affecting~~ affecting the certification processes and procedures detailed in this application shall be duly reported to the California Energy Commission, (CEC), ~~TBA~~ by the CET Training Consultant.

**Quality Assurance and Accountability**

On the NLCAA website, there is a place for AHJs, city officials and/or general public to submit comments, complaints or suggestions to NLCAA. The person submitting will have the option to do so anonymously or name themselves so we may reach out to them for further information.

~~“... accountability measures, such as, ... building department surveys to determine acceptance testing effectiveness ...”~~

~~When an authorized party is granted access to the results of Acceptance Testing on the NLCAA database server, a Portable Document Format file representing the State Acceptance Testing Compliance Form will be generated for download. Appended to this file download will be a copy of the NLCAA Building Department Survey Form (Attachment 13), in Portable Document Format, (pdf), rendering it immediately accessible to the authorized parties.~~

~~§ 10-103-A (c) F. **Quality Assurance and Accountability**~~

~~Continued...~~

~~“... accountability measures, such as ... expert review of the training curricula developed for Building Energy Efficiency Standards, Section 130.4.”~~

~~Expert review of training curricula will be continuously provided by a subject matter expert (SME) in the Building Energy Efficiency Standards. developed (currently) by Robert A. Shearer, BSEE, for Building Energy Efficiency Standards, Section 130.4 and satisfying 10-103-A (c) B. (i), as appropriate, will be provided by directors and associates of the NLCAA. Current expert review is provided by Mr. Gary Flamm, and Mr. Rick Miller, P.E., as well as Mr. Bernardo Torres, (representing the Electrical Contractor community).~~

~~“... accountability measures, such as ... certification process evaluations ...”~~

~~Compliance process evaluation by NLCAA shall take the form of a Desk Audit or a Field Inspection. the “Form Review<sup>3</sup>”: “Audit Procedure Form Review”, “Complaint Procedure Form Review<sup>3</sup>”, “Disciplinary Form Review<sup>3</sup>”, or “Random Form Review<sup>3</sup>”, as defined for this document, (see Appendix 2, Definitions).~~

~~“Form Review(s)<sup>3</sup>” may be dictated by the Audit Procedure, Complaint Procedure, or “Randomly<sup>3</sup>”. Said Form Reviews(s) will be completed by: a computer implemented “expert system”, or by a human agent.~~

~~“Disciplinary Form Reviews<sup>3</sup>” will be completed by a human agent.~~

~~“Random Form Reviews<sup>3</sup>” will be completed by a human agent or by a computer implemented “expert system”.~~

~~The “Form Review<sup>3</sup>” Desk Audit process allows NLCAA directors or their agents to review Acceptance testing forms for signs of “irregularities” or “inconsistences” as determined by NLCAA directors or their agents.~~

~~Under Audit Procedure rules, “Form Review(s)<sup>3</sup>” Desk Audits allow comparisons between Audit Forms submitted for a job and Acceptance testing forms submitted for the same job.~~

~~The Desk Audits are done at project level and will cover the compliance form requirements of the code.~~

~~Under Complaint Procedure rules, “Form Review(s)<sup>2</sup>” allow the same comparisons as under the Audit Procedure, but additional past Audit Forms may be pulled for comparison, with applicable charges. No more than 6 “Form Review(s)<sup>2</sup>” may be invoked during a single complaint proceeding.~~

~~Under Complaint Procedure rules “Disciplinary Form Review(s)<sup>3</sup>” may be called for in any quantity up to 10 as specified by NLCAA directors. This allows the inspection of any or all Acceptance Testing Forms and/or Audit Forms previously submitted by the NLCAA Certified AT Technician(s) and/or ATT Employer(s) under scrutiny to be examined, with applicable charges.~~

§ 10-103-A (c) F. **Quality Assurance and Accountability**

Continued...

~~“Random Form Reviews<sup>1</sup>” will apply to each Field Technician under certification. A “Random Form Review<sup>1</sup>” will be instigated upon an Acceptance Test Technicians first completed assignment. Two “Random Form Review<sup>1</sup>” triggers<sup>1</sup> will be placed in the NLCAA database manager when a NLCAA-Certified AT Technician has completed 20 acceptance testing jobs. A flag<sup>1</sup> will be produced by the NLCAA database manager at this point and two instances of two rolls of a ten-sided die will be cast to determine which two of the next 100 jobs scheduled for the Field Technician will undergo a Random-Form-Review<sup>1</sup>. Should the results of either of these Random Form Reviews<sup>1</sup> be deemed unsatisfactory by NLCAA or its’ agent; NLCAA will begin Complaint Proceedings against the Field Technician and ATT-Employer involved — with a recommended finding of a “Complaint Procedure Field Inspection<sup>1</sup>” and one or more Audit Procedures. Two triggers<sup>1</sup> will be inserted and flags<sup>1</sup> produced as described above by the NLCAA database manager at 120 jobs and for each subsequent 100 jobs — and this process shall be repeated.~~

~~A “Random Form Review<sup>1</sup>”, (like any Form Review<sup>1</sup>), shall be deemed “unsatisfactory” if it can be discerned by inspection that any of the actions outlined under: § 10-103-A (c) E. **Certification-Revocation Procedures**, (including but not limited to), “Poor quality work”, “Ineffective work”, or, “Other specified actions ...”: have possibly occurred.~~

~~An “Audit Procedure Form Review<sup>1</sup>” is a Form Review<sup>1</sup> which also allows correlation between-Acceptance-Testing data and the Audit Form submitted for the job in question. In addition to the “unsatisfactory” criterion for a Form Review<sup>1</sup>, mismatched or missing data between-Acceptance-Testing data and the Audit Form will trigger an Audit Procedure Field Inspection<sup>1</sup>.~~

~~“... Reasonable access ... provided by ... certification costs commensurate with the complexity of ...”~~

~~The charge for an Audit Procedure Form Review<sup>1</sup> is: Nothing; \$0~~

~~The charge for a Form Review<sup>1</sup> is: \$75.<sup>00</sup>~~

~~The charge for a Random Form Review<sup>1</sup> is: \$75.<sup>00</sup>~~

~~The charge for a Complaint Procedure Form Review<sup>1</sup> is: \$150.<sup>00</sup>~~

~~The charge for a Disciplinary Form Review<sup>1</sup> is: \$200.<sup>00</sup>~~



~~§ 10-103.1 (c) 3. F. Quality Assurance and Accountability~~

~~“... accountability measures, such as ... visits to building site(s) where certified technicians are completing acceptance tests ...”~~

The “Field Inspection<sup>3</sup>” procedure is summarized below and found in Appendix 2 of this application. The requirement for a “Field Inspection<sup>3</sup>” will be imposed upon AT Technician(s) and/or ATT Employer(s) due to a variety of circumstances:

~~“Audit Procedure Field Inspection”, (Attachment 5), due to unsatisfactory results of Audit Procedure;~~

~~The Complaint Procedure, (Attachment 7), due to disciplinary action of NLCAA directors;~~

~~“Random Field Inspection<sup>3</sup>”, scheduled due to ongoing “1% Random Sampling<sup>3</sup>”~~

All of the above are “Field Inspections<sup>3</sup>”, and vary as noted below.

~~In brief: A “Field Inspection<sup>3</sup>” is a “(visit) to (a) building site where certified technicians are completing acceptance tests”, § 10-103.1 (c) 3. F. This site visit shall be arranged by an Acceptance Test Technician Employer for the Field Technician under inspection. This “Field Inspection<sup>3</sup>” should occur on the next possible occasion after the Employer has been notified by First Class Mail (and telecommunications<sup>3</sup>, when convenient for NLCAA). A “Field Inspection<sup>3</sup>” will consist of a minimum 2-hour site visit during which the Field Technician performing acceptance testing will be observed and interviewed by an approved NLCAA inspector. In addition: any or all of the following may occur; verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the Acceptance Test Technician(s) performing acceptance tests.~~

~~An “Audit Procedure Field Inspection<sup>3</sup>” is a “Field Inspection<sup>3</sup>” as described above;~~

~~A “Random Field Inspection<sup>3</sup>” is a “Field Inspection<sup>3</sup>” as described above. A “Random Field Inspection<sup>3</sup>” requirement is generated by the 1% Random Selection process, (Attachment 14). A Random Field Inspection<sup>3</sup> should be completed at the selected Field Technicians’ next Acceptance Testing job, if feasible.~~

~~A “Complaint Procedure Field Inspection<sup>3</sup>” is a “Field Inspection<sup>3</sup>” as described above — EXCEPT it is performed at a visit to a site that produced an acceptance testing complaint. A “Complaint Procedure Field Inspection<sup>3</sup>” requirement is only generated by the Complaint Procedure, Attachment 7.~~

~~§ 10-103.1 (c) 3. F. Quality Assurance and Accountability~~

Continued ...

A “Random Field Inspection<sup>1</sup>” is a “Field Inspection<sup>1</sup>”.

“**Random Field Inspections<sup>1</sup>**” will apply to each Field Technician under certification. A “Random Field Inspection<sup>1</sup>” trigger<sup>1</sup> will be placed in the NLCAA database manager when a NLCAA Certified AT Technician has completed training and certification. A flag<sup>1</sup> will be produced by the NLCAA database manager at the point determined by two rolls of a ten sided die that have been cast to determine which of the first 100 jobs scheduled for the Field Technician will undergo a Random Field Inspection<sup>1</sup>. Should the results of this inspection be deemed unsatisfactory by NLCAA or its’ agent; NLCAA reserves the right to increase the sampling rate to two inspections out of 100 jobs and will initiate, at their discretion, Complaint Proceedings. Should the results of this Random Field Inspection<sup>1</sup> be deemed unsatisfactory by NLCAA or its’ agent; NLCAA will begin, at their discretion, Complaint Proceedings against the Field Technician and ATT Employer involved — with a recommended finding of a “Complaint Procedure Field Inspection<sup>1</sup>” and one or more Audit Procedures. Trigger(s)<sup>1</sup> will be inserted and flag(s)<sup>1</sup> produced as described above by the NLCAA database manager within the first 100 jobs and for each subsequent 100 jobs — and this process shall be repeated.

NLCAA Application to the CEC — Rev 04 — 8/11/14 — Page: 29

#### § 10-103-A (c) F. **Quality Assurance and Accountability**

Continued ...

A “Disciplinary Field Inspection<sup>2</sup>” is *NOT* a “Field Inspection<sup>1</sup>”, but is separately defined.

A “Disciplinary Field Inspection<sup>2</sup>” can only be instituted by a Complaint Procedure, attachment 7.

A “**Disciplinary Field Inspection<sup>2</sup>**” shall be a visit to a building site where certified technicians are completing acceptance tests, or have previously completed acceptance tests. This building site shall be the building site identified in the Complaint Procedure<sup>1</sup>. The Acceptance Test Technician Employer shall arrange with the building owner(s) of the property shown on the complaint in question to allow NLCAA or their agents to enter the property in question to perform testing to verify the Acceptance Testing results. This retesting may encompass anything up to and including a complete retest of any or all lighting controls installed at the property in question. This retesting should be arranged to occur within 60 calendar days of notification that an inspection is required, or; If for any compelling reason the “Disciplinary Field Inspection<sup>2</sup>” cannot be carried out in the time frame allotted, a new Complaint Form, (Attachment 6), will be generated by NLCAA for any or all of the Acceptance Test Technician(s) or Acceptance Test Technician Employer(s) involved in the original complaint. The recommended finding of this new complaint will be retraining<sup>1</sup>.

Under special circumstances, (as determined by NLCAA directors), a “Disciplinary Field Inspection<sup>2</sup>” may be allowed to occur at a site other than the site involved in the Complaint Procedure<sup>1</sup>.

A “Disciplinary Field Inspection<sup>2</sup>”, (as defined in Appendix 2), is a thorough inspection verifying, at a minimum, (should they exist):

a) ~~2 (previously tested) Occupancy sensors, and 2 (untested) Occupancy sensors;~~

b) ~~1 (previously tested) Building Timer~~

c) ~~1 (previously tested) Automatic Daylighting System~~

d) ~~Automated Demand Response System (if practical)~~

~~“... reasonable access to certification ... considering factors such as certification costs commensurate with the complexity of the training being provided ...”~~

~~The charge for a Field Inspection<sup>1</sup> is: \$500.<sup>00</sup>~~

~~The charge for a Disciplinary Field Inspection<sup>2</sup> is: \$1500.<sup>00</sup> per day~~

NLCAA Application to the CEC – Rev 04 – 8/11/14 – Page: 30

~~§ 10-103-A (c) F. **Quality Assurance and Accountability** – Refresher Training~~

~~In the opinion of the directors of NLCAA: the Acceptance Test Technician course of instruction is complex enough to require periodic retraining for Acceptance Test Technicians. To this end, as a courtesy to our Field Technicians an online refresher course will be made available – free of charge.~~

~~§ 10-103.1-A(c) 3. G. **Certification Number and Verification of ATT Certification Status.**~~

~~NLCAA or their agent(s) or proxies shall issue a unique Lighting Controls Acceptance Test Technician ATT identification number.~~

~~The following is submitted by NLCAA to meet the requirements of § 10-103-A (c) G.~~

~~NLCAA will issue the Acceptance Test Technician a unique identification number starting with the prefix “ATT” followed by 4 digits representing the year and month and ending with a 5-digit number representing that months’ graduates the order in which the ATT was certified within the month. NLCAA will issue the ATE a unique identification number following the same format, except, the prefix is “ATE.”~~

Sample	ATT-1405-00002	ATE-1405-00002
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~~{Where} {14} indicate(s) the year and {05} indicates the month {and} {00002} was the second student certified that month.~~

~~The NLCAA website has postings for both the ATTs and ATEs contractors, (acceptance test technician employers), and acceptance test technicians. The posting will also indicate if their certification is currently “active” or “inactive.” ~~they are eligible to perform testing, list any complaints filed, and show certification or suspension status.~~~~

Additionally:

~~Acceptance Test Technician Employers may be identified in the NLCAA database by name, contact information and date of original certification.~~

~~NLCAA will issue the Acceptance Test Technician Employer a unique identification number starting with the prefix ETT followed by 6 digits representing the order in which ATT Employers were certified.~~

~~ETT-000000~~

NLCAA shall provide verification of current ATT certification status upon request to authorized document Registration Provider or enforcement agency personnel ...

~~“... costs commensurate with the complexity ...”~~

~~A fee of \$300.<sup>00</sup> will be assessed prior to the use of NLCAA Acceptance Testing Data Entry Software for a single building permit issued for a building site where certified technicians are completing acceptance tests.~~

NLCAA Application to the CEC — Rev 04 — 8/11/14 — Page: 31

~~§ 10-103-1A(d) 1. Requirements for ATTCPs to Provide Annual Reports.~~

~~NLCAA shall provide an annual report to the Energy Commission per the requirements of 10-103.1(d) quantifying the following information:~~

- ~~1) Total number of Acceptance Test Technicians certified during the reporting period;~~
- ~~2) Total number of Acceptance Test Technician Employers certified during the reporting period;~~
- ~~3) Total number of Acceptance Test Technicians certified since July 1<sup>st</sup>, 2014;~~
- ~~4) Total number of Acceptance Test Technician Employers certified since July 1<sup>st</sup>, 2014;~~
- ~~5) Total number of Acceptance Test Technicians currently under certification by NLCAA;~~
- ~~6) Total number of Acceptance Test Technician Employers currently under certification by NLCAA;~~
- ~~7) Total number of Acceptance Test Technicians with certifications revoked during the reporting period;~~
- ~~8) Total number of Acceptance Test Technician Employers with certifications revoked during the reporting period;~~
- ~~9) Total number of Acceptance Test Technicians with certifications surrendered during the reporting period;~~
- ~~10) Total number of Acceptance Test Technician Employers with certifications surrendered during the reporting period;~~

~~11) Total number of Acceptance Test Technicians with certifications under suspension on last day of the reporting period;~~

~~12) Total number of Acceptance Test Technician Employers with certifications under suspension on last day of the reporting period;~~

~~Additionally, summaries of adjustments to training curricula will be reported when required to:~~

~~1) Address changes to lighting technology and controls currently found in the field;~~

~~2) Address changes to the Building Energy Efficiency Standards Acceptance testing requirements;~~

~~3) Address updates to the Building Energy Efficiency Standards;~~

~~Additional reports to the California Energy Commission shall be submitted, as required, to demonstrate that adjustments to training are reflective of the requirements noted above and are being introduced, (when practical), no less than 6 months prior to the adoption of changes to the Building Energy Efficiency Standards.~~

~~Required annual reports shall be transmitted to the California Energy Commission within 30 days of the end of the reporting period. All required reports shall contain a signed certification that NLCAA has met all requirements for this program.~~

## Summary - ~~§~~ 10-103.1-A(c)

The National Lighting Contractors Association of America, (NLCAA), shall be the organization certifying Lighting Controls Acceptance Test Technicians and Employers of same.

Independent oversight of this process shall be provided by the ~~€~~Training ~~e~~Consultant of California Electrical Training.

Reasonable Access to the course material is shown ~~by the methods of dissemination shown~~ on page 5 of this document. Hands-on training, (~~§ 10-103-A(c) 3. B. (ii)~~) will be required for the training of Field Technicians.

Prequalification procedures for both Field Technicians and Employers are detailed in this document.

Oversight of the certification processes and procedures will be accomplished through:

The ~~Audit Oversight Procedures;~~ and The Complaint Procedure;

~~Form Reviews;~~

~~Field Inspections and Random Field Inspections;~~

~~Building Department Surveys.~~

The ability of NLCAA to suspend or revoke certification of Field Technicians and Employers is detailed in this document.

Requirements for additional training and recertification procedures are detailed in this document.

The ability of NLCAA to reduce or waive fees for training and other services appears in this document.

The ability to provide certification identification numbers and verification of certification to the California Energy Commission is outlined in this document. The ability to provide acceptance testing forms and data to authorized parties, (along with Complaint Procedures ~~and Building Department Surveys~~), is described in this document.


NLCAA shall provide annual reports containing, (at a minimum), the information outlined in ~~§~~ 10-103.1-A(d) 1.

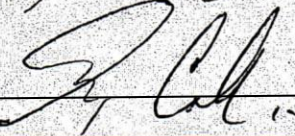
~~June 25, 2014~~

~~Signature Page~~

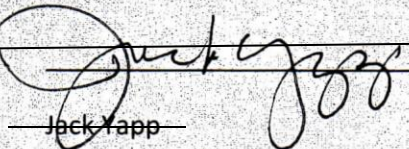
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~~Rob Pleroth, Director~~

~~~~  
~~Richard D. Des Lauriers, Director~~

~~~~  
~~Gary Collier, Director~~

~~~~  
~~Jack Yapp, Director~~

~~~~  
~~Jack Yapp~~  
~~Secretary~~

# NLCAA LIGHTING ATTCP APPLICATION

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## BYLAWS

### OF

## NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA

### ARTICLE 1-OFFICES

#### SECTION 1. PRINCIPAL OFFICE

The principal office of the corporation for the transaction of its business is located at 3301 E. Hill Street Suite 408 Signal Hill in Los Angeles County, California.

#### SECTION 2. CHANGE OF ADDRESS

The county of the corporation's principal office can be changed only by amendment of these Bylaws and not otherwise. The Board of Directors may, however, change the principal office from one location to another within the named county by noting the changed address and effective date below, and such changes of address shall not be deemed an amendment of these Bylaws:

#### SECTION 3. OTHER OFFICES

The corporation may also have offices at such other places, within or without the State of California, where it is qualified to do business, as its business may require and as the board of directors may, from time to time, designate.

### ARTICLE II - PURPOSE

#### SECTION 1. OBJECTIVES AND PURPOSES

The primary objectives and purposes of this corporation shall be:

- a) Provide training and education to State, Counties, Cities, and their municipalities regarding ~~required energy efficient lighting and controls systems~~ energy efficiency codes.
- b) Provide training and education to the public ~~its members.~~
- c) Promote energy efficient lighting and controls systems.
- d) Provide training, certification and oversight to ATTs and ATEs.



# NLCAA LIGHTING ATTCP APPLICATION

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## ARTICLE III - DIRECTORS

### **SECTION 1. NUMBER**

The corporation shall have a minimum of three directors and collectively they shall be known as the Board of Directors. The number may be changed by approval of the Board of Directors, amendment of this Bylaw, or by repeal of this Bylaw and adoption of a new Bylaw, as provided in these Bylaws.

### **SECTION 2. POWER**

Subject to the provisions of the California Nonprofit Public Benefit Corporation law and any limitations in the Articles of Incorporation and Bylaws relating to action required or permitted to be taken or approved by the members, if any, of this corporation, the activities and affairs of this corporation shall be conducted and all corporate powers shall be exercised by or under the direction of the Board of Directors.

### **SECTION 3. DUTIES**

It shall be the duty of the directors to:

- a) Perform any and all duties imposed on them collectively or individually by law, by the Articles of Incorporation of this corporation, or by these Bylaws;
- b) Appoint and remove, employ and discharge, and, except as otherwise provided in these Bylaws, prescribe the duties and fix the compensation, if any, of all officers, agents and employees of the corporation;
- c) Supervise all officers, agents and employees of the corporation to assure that their duties are performed properly;
- d) Meet at such times and places as required by these Bylaws;
- e) Register valid email and physical addresses with the Secretary of the corporation for all official corporate correspondence.

### **SECTION 4. TERMS OF OFFICE**

Each director shall hold office until the next annual meeting for election of the Board of Directors as specified in these Bylaws, and until his or her qualified successor is elected.

### **SECTION 5. COMPENSATION**

Directors shall serve without compensation. In addition, they shall be allowed reasonable advancement or reimbursement of expenses incurred in the performance of their regular duties as specified in Section 3 of this Article. Directors may not be compensated for rendering

## NLCAA LIGHTING ATTCP APPLICATION

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services to the corporation in any capacity other than director unless such other compensation is reasonable and is allowable under the provisions of Section 3 of this Article

### **SECTION 6. PLACE OF MEETINGS**

Meetings shall be held at the principal office of the corporation unless otherwise provided by the board or at such place within or without the State of California which has been designated from time to time by resolution of the Board of Directors. In the absence of such designation, any meeting not held at the principal office of the corporation shall be valid only if held on the written consent of all directors given either before or after the meeting and filed with the Secretary of the corporation or after all board members have been given written notice of the meeting as hereinafter provided for special meetings of the board. Any meeting, regular or special, may be held by conference telephone or similar communications equipment, so as long as all directors participating in such meeting can hear one another.

### **SECTION 7. REGULAR AND ANNUAL MEETINGS**

Regular meetings of the Directors shall be held annually in the month of February ~~on the third Saturday of August at 10:00 AM.~~

At the annual meeting ~~held on the third Saturday of August~~, directors shall be elected by the Board of Directors in accordance with this section. Cumulative voting by directors for the election of directors shall not be permitted. The candidates receiving the highest number of votes up to the number of directors to be elected shall be elected. Each director shall cast one vote, with voting being by ballot only.

### **SECTION 8. SPECIAL MEETING**

Special meetings of the Board of Directors may be called by the Chairperson of the board, the President, the Vice President, the Secretary, or by any two directors, and such meetings shall be held at the place, within or without the State of California, designated by the person or persons calling the meeting, and in the absence of such designation, at the principal office of the corporation.

## NLCAA LIGHTING ATTCP APPLICATION

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### SECTION 9. NOTICE OF MEETINGS

Notices for all meetings (regular and annual) will be sent to all participants via telecommunications at least 48 hours in advance of the meeting. Emergency meetings are not subject to the 48-hour requirement. ~~Regular meetings of the board may be held without notice. Special meetings of the board shall be held upon four (4) days' notice by first class mail or forty eight (48) hours' notice delivered personally or by telephone or email. If sent by mail or email, the notice shall be deemed to be delivered on its deposit in the mails or on its delivery to the email company. Such notices shall be addressed to each director at his or her address as shown on the books of the corporation. Notice of the time and place of holding an adjourned meeting need not be given to absent directors if the time and place of the adjourned meeting are fixed at the meeting adjourned and if such adjourned meeting is held no more twenty four (24) hours from the time of the original meeting. Notice shall be given of any adjourned regular or special meeting to directors absent from the original meeting if the adjourned meeting is held more than twenty four (24) hours from the time of the original meeting.~~

### SECTION 10. CONTENTS OF NOTICE

Notice of meetings not herein dispensed with shall specify the place, day and hour of the meeting. The purpose of any board meeting need not be specified in the notice.

### SECTION 11. WAIVER OF NOTICE AND CONSENT TO HOLDING MEETINGS

The transactions of any meeting of the board, however called and noticed or wherever held, are as valid as though the meeting had been duly held after proper call and notice, provided a quorum, as hereinafter defined, is present and provided that either before or after the meeting each director not present signs a waiver of notice, a consent to holding the meeting, or an approval of the minutes thereof. All such waiver, consents, or approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

### SECTION 12. QUORUM FOR MEETINGS

A quorum shall consist of Two Directors.

### WRITTEN CONSENT OF DIRECTORS ADOPTING BYLAWS

We, the undersigned, are all of the persons named as the ~~initial~~ current directors in the Articles of Incorporation of NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA, a



## NLCAA LIGHTING ATTCP APPLICATION

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California nonprofit corporation, and, pursuant to the authority granted to the directors by these Bylaws to take action by unanimous written consent without a meeting, consent to, and hereby do, adopt the foregoing Bylaws, consisting of four pages, as the Bylaws of this corporation.

Dated: June 26, 2019

~~Temistocles Caal, Director~~

~~Gary Collier Director~~

~~Jack Yapp CEO~~

~~Rob Pieroth, Director~~

~~Rick Des Lauriers Director~~

Michael Scalzo, Executive Director

Josh Simpson, Director

Brianna Scalzo, Secretary and Program Director

Kevin White, Director

Robert Peterson, Director

Frank Romero, Director

Robert Yapp, Treasurer and CET Training Consultant



## NLCAA LIGHTING ATTCP APPLICATION

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### CERTIFICATE

This is to certify that the foregoing is a true and correct copy of the Bylaws of the corporation named in the title thereto and that such Bylaws were duly adopted by the Board of Directors of said corporation on the date set forth below.

Dated       ~~7-6-13~~ June 26, 2019      

A handwritten signature in cursive script, appearing to read "Jack Yapp", is written over a horizontal line.

Jack Yapp, Secretary

A handwritten signature in cursive script, appearing to read "Michael Scalzo", is written in black ink.

Michael Scalzo, Executive Director

# ~~Lighting Controls Acceptance Test Technician Class Outline~~

## ATT Course Curriculum Outline

### Changes submitted confidentially

#### **Introduction**

**Contents of This Handbook**

**Quality and Complaint Policies and Procedures**

**Acceptance Test Technician**

#### **Modern Lighting Technologies**

**Past Technologies**

**Luminance and Illuminance**

**Units of Interest**

**Lumen Output**

**Footcandles and Lux**

**Absolute vs. Relative Illuminance Measurement**

**Proper Use of Lightmeters**

**Lightmeter Types**

#### **IES Lighting Levels and Title 24**

**Lamp Types Review**

**Incandescent**

**Fluorescent**

**Induction**

**HID**

**LED**

#### **Lamp Specifications**

**Correlated Color Temperature**

**Color Rendering**

**Lamp Markings**

**DOE Information Labels**

#### **Ballasts and Drivers**

**Fluorescent Ballasts: BF and BEF**

**Starting Fluorescents and HID**

**Institutional Tuning**

**Lumen Maintenance**

**Fluorescent Dimming**

**LED Drivers: Dimming**

#### **Controlling Luminaires**

**0-10V Dimming Ballasts and Drivers**

**Digital Dimming Ballasts and Drivers**

**Installing and Testing**

**Wiring Techniques**

**Heat Dissipation**

**Grounding**

**Initial Testing**

**Lighting Controls****Area Controls-****Switching Schemes****Line Voltage-****Low Voltage****Relays, Power Packs, Power Pack Logic Functions-****Shut OFF Controls and 130.1 (b)****Automatic Time Switches-****Occupancy sensors****Technologies and Applications-****Dimming Controls and 130.1 (c)****Phase Dimmers-****0-10V and Digital Controls-****Zones, Groups, and Scenes****Daylight Harvesting and 130.1 (d)****Photosensors vs. Photo-controllers-****Open and Closed Loop Systems Introduction-****Automated Demand Response and 103.1 (e)****The Demand Response Signal****Title 20 and Lighting Systems-****Lighting Systems-****Large Lighting Systems****Working with Lighting Controls****Safety****Avoiding Equipment Damage-****Test Equipment Types and Use****Test Equipment Ratings-****Test Equipment Safety-****Lock-out/Tag-out and PPE-****Avoiding “Deprogramming”****Reference Documents****Why advanced lighting and Title 24?****Contents of the 4 Reference Documents-****Where to find the Reference Documents-****Insuring you have the most recent revisions-****2016 Building Energy Efficiency Standards****Definitions, Compliance Process, Design, Mandatory Controls, Acceptance-****2016 Reference Appendices****Acceptance Tests, Installation Tests-****2015 Appliance Efficiency Regulations-****Functional Requirements of Lighting Controls-****Insuring devices have been Certified to the Energy Commission-****2016 Nonresidential Compliance Manual**

**Regulation and Certification****Title 20****Certified to the Commission****Introductory Subjects****The Percent Reduction Formula****Percentages****Compliance Process****The Compliance Process****Examination of Forms****Compliance Forms****Installation Forms****Acceptance Forms****Definitions****Title 24 Controls****Where Required and Exceptions****Lighting Power Density****Design methods****Prescriptive methods****Performance methods****Trade-offs****Interlocked Lighting Systems****Area Controls****Where Required and Exceptions****Multi-Level Controls****Minimum Control Steps by Technology and Wattage****Uniformity Requirements by Technology and Wattage****Where Required and Exceptions****Dimming Controls****Acceptance Testing Overview****Purpose of Acceptance Testing****When Required****Construction Inspections****Functional Testing****Acceptance Forms****Shut-OFF Controls****Introduction: Timers and Occupancy sensors****Power Adjustment Factors (PAF)****Calculating and Verifying****Acceptance Testing****Timers****Automatic Time-Switches****Astronomical Time-Switch**



**Occupancy Sensors****Part-OFF****Why Required-****Part-ON****Why Utilized-****Where Required-****Vacancy Sensors****Shut-OFF Controls Acceptance Procedures-****Acceptance tests****Filling Out NRCA-LTI-02-A****Review: Where Required****Demand Responsive Controls-****Where Required and Exceptions-****Area-Weighted Average-****Acceptance Testing****Full Output Test-****Minimum Output Test****Special Case: Daylit Spaces****Automatic Daylighting Controllers-****Review of Closed-Loop Lighting Systems-****Introduction-****Overview of Common Daylighting Systems-****Definitions****Daylit Zones****Definitions****Order of Precedence****Location of Daylit Zones on Plans-****Fixtures Located in Daylit Zones****Zones Illuminated by Controlled Luminaires-****Acceptance Testing****Construction Inspection****EMCS or Lighting Control System Installation Inspections****Stepped or Continuously Dimmed System?****Photosensor Location and System Type: (Open or Closed) Loop?****Review of Open and Closed Loop Daylighting Systems****Reference Location****Locating****Special Case: Parking Garages**

**Acceptance Testing of Automatic Daylighting Systems-**

**Functional Testing**

**Closed-Loop Systems**

**No Daylight Test**

**Full Output Test**

**Full Daylight Test**

**Power Reduction Calculation**

**Partial Daylight Test**

**Open-Loop Systems**

**No Daylight Test**

**Sensor Ratio**

**Full Daylight Test**

**Power Reduction Calculation (Stepped)**

**Power Reduction Calculation (Continuous)**

**Partial Daylight Test**

**Continuous**

**Stepped**

**Institutional Tuning**

**How Accomplished**

**Acceptance Testing**

**Filling out NRCA-LTI-05-A**

**Outdoor Lighting Controls**

**Types of Outdoor Lighting Controls**

**Where Required and Exceptions**

**Part-Night Controls: Definition**

**Part-Night Controls: Extended Definition per § 110.9 (b) 5-**

**Acceptance Testing**

**Construction Testing**

**Location of Outdoor Controls**

**Functional Testing**

**Shut-OFF Controls**

**Timers**

**Part-Night Timers**

**Part-Night Motion or Time-Based System**

**Automatic Scheduling Systems**

**Summary**

**Who Signs the Forms?**

# ~~Lighting Controls Acceptance Test Employer Class Outline~~

## ATE Course Curriculum Outline

Changes submitted confidentially

### **Introduction**

~~Quality and Complaint Policies and  
Procedures Acceptance Test Technician  
Acceptance Test Employer~~

### **Reference Documents**

~~Why advanced lighting and Title 24?  
Contents of the 4 Reference Documents  
Where to find the Reference Documents  
Insuring you have the most recent revisions  
2016 Building Energy Efficiency Standards  
Definitions, Compliance Process, Design, Mandatory Controls,  
Acceptance 2016 Reference Appendices  
Acceptance Tests, Installation Tests 2015 Appliance Efficiency  
  
Regulations Functional Requirements of Lighting Controls  
Insuring devices have been Certified to the Energy  
Commission 2016 Nonresidential Compliance Manual~~

### **Regulation and Certification**

~~Title 20  
Certified to the Commission~~

### **Introductory Subjects**

~~The Percent Reduction  
Formula Percentages~~

### **Compliance Process**

~~The Compliance  
Process Examination of  
Forms Compliance  
Forms Installation  
Forms Acceptance  
DefinitioFoonrsms~~

### **Title 24 Controls**

~~Where Required and  
Exceptions Lighting Power  
Density Design methods  
Prescriptive  
methods  
Performance method  
Interlocked Lighting Systems~~

**Area Controls****Where Required and Exceptions****Multi-Level Controls****Minimum Control Steps by Technology and Wattage****Uniformity Requirements by Technology and****Wattage Where Required and Exceptions****Dimming Controls****Shut-OFF Controls****Introduction: Timers and Occupancy****sensors Power Adjustment Factors (PAF)****Calculating and****Verifying Acceptance****Timers — Testing****Automatic Time Switches****Astronomical Time Switch****Occupancy Sensors****Part-OFF****Why****Required Part-ON****Why Utilized Where****Required****Vacancy Sensors****Shut-OFF Controls Acceptance Procedures****Acceptance tests****Filling Out NRCA-LTI-02-****A Review: Where Required****Automatic Daylighting Controllers****Review of Closed-Loop Lighting Systems****Introduction****Overview of Common Daylighting****Systems Definitions****Daylit Zones****Definitions****Order of Precedence****Location of Daylit Zones on Plans****Fixtures Located in Daylit Zones****Zones Illuminated by Controlled****Luminaires Acceptance Testing****Construction Inspection****Stepped or Continuously Dimmed System?****Photosensor Location and System Type: (Open or Closed)-****Loop? Review of Open and Closed Loop Daylighting Systems**

**Reference Location**

**Locating**

**Special Case: Parking Garages**

**Acceptance Testing of Automatic Daylighting Systems**

**Functional Testing**

**Closed-Loop Systems**

**No Daylight**

**Test Full Output**

**Test Full Daylight**

**Test Power Reduction**

**Calculation Partial Daylight Test**

**Open-Loop Systems**

**No Daylight Test**

**Sensor Ratio**

**Full Daylight Test**

**Power Reduction Calculation (Stepped)**

**Power Reduction Calculation (Continuous)**

**Partial Daylight Test**

**Continuous**

**Stepped**

**Outdoor Lighting Controls**

**Types of Outdoor Lighting Controls**

**Where Required and Exceptions Part**

**Night Controls: Definition**

**Part Night Controls: Extended Definition per § 110.9**

**(b) 5. Acceptance Testing**

**Construction Testing**

**Location of Outdoor Controls Functional**

**Testing**

**Shut-Off Controls**

**Timers**

**Part-Night Timers**

**Part-Night Motion or Time-Based**

**System Automatic Scheduling Systems**

**Demand Responsive Controls**

**Where Required and**

**Exceptions Area Weighted**

**Average Acceptance Testing**

**Full Output Test**

**Minimum Output Test**

**Special Case: Daylit Spaces**

**Institutional Tuning**

**How Accomplished**

**Acceptance Testing**

**Filling out NRCA-LTI-05-A**

**Working with Lighting Controls**

**Safety**

**Avoiding Equipment Damage**

**Test Equipment Types and Use**

**Test Equipment Ratings**

**Test Equipment Safety**

**Lock-out/Tag-out and PPE**

**Summary**

**Who Signs the Forms?**

NLCAA AUDIT FORM

1 – IDENTIFY THE PROJECT:

In House Name of Project: \_\_\_\_\_

In House Project and/or Work Order Number(s): \_\_\_\_\_

Location of Project: \_\_\_\_\_

Project Identifying Numbers or Names from Plans or Building Permit: \_\_\_\_\_

2 – IDENTIFY THE ACCEPTANCE TEST PERSONNEL:

Name of Responsible Person(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Responsible Person(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Responsible Person(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Documentation Authors(s): \_\_\_\_\_

Name of Documentation Authors(s): \_\_\_\_\_

Name of Documentation Authors(s): \_\_\_\_\_

Name of Field Technician(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Field Technician(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Field Technician(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Field Technician(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

Name of Field Technician(s): \_\_\_\_\_ Certification #: \_\_\_\_\_

## NLCAA AUDIT FORM – Page 2

## 3— IDENTIFY YOURSELF:

Business Name and Location: \_\_\_\_\_

\_\_\_\_\_

Name(s) of Person(s) Filling Out *THIS* Form: \_\_\_\_\_,

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,

Principle *Responsible Person* Verifying *THIS* Form is Complete and Accurate (per 10-103(a) 4., JA7.4.6):

\_\_\_\_\_ Job Description \_\_\_\_\_

Cell Phone: \_\_\_\_\_ Other Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

Was/Were Acceptance the Test Technician(s): Your Employee? , or Contract Personnel 

If Field Technician was Contract Personnel, Please Identify Their Employer:

\_\_\_\_\_

\_\_\_\_\_

Are *YOU*: the General Contractor , the Electrical Contractor , the Lighting Contractor ,The Lighting Designer , the System Integrator , the Building Designer , or;Other?: , if "Other", Please describe: \_\_\_\_\_

## NLCAA AUDIT FORM – Page 3

## 4 - THIS AUDIT FORM IS BEING COMPLETED BECAUSE:

- It is an Acceptance Test Technicians' First Job: Yes  No
- A Field Technician Has Had more Than 10 Jobs in 30 Days: Yes  No
- It Has Been More Than 3 Years Since a Technicians' Last Audit: Yes  No
- The FINAL Inspection Has Failed on This Job: Yes  No
- NLCAA has Prescribed This Audit Due to a Complaint: Yes  No
- NLCAA has Prescribed This Audit for Other Reasons: Yes  No
- Other: \_\_\_\_\_ Yes  No
- I Don't Know ...  Yes \_\_\_\_\_

## 5 – THE SITE UNDERGOING ACCEPTANCE TESTING:

- A) Required Testing of INDOOR Lighting Controls ONLY: Yes  No
- B) Required Testing of OUTDOOR Lighting Controls ONLY: Yes  No
- C) Required *Both* INDOOR and OUTDOOR Controls Testing: Yes  No
- If "A" is "Yes" Continue – Skip Sections: 12, 13, and 14
- If "B" is "Yes" Skip to Section: 12
- If "C" is "Yes" Continue ...

## 6 – INDOOR SHUT OFF CONTROLS:

Did the Building Have One or More Automatic Timers

Controlling Lighted Areas? : Yes  No  I Don't Know

If "No" Skip the Remainder of This Section ...

If "Yes" Answer the Following Questions ...

Was/were the Timer(s) set to ON Condition to Test? Yes  No  I Don't Know

Were the Effected Area Controls Active in ON Condition: Yes  No  I Don't Know

Was/were the Timer(s) set to OFF Condition to Test? Yes  No  I Don't Know

Were the Effected Area Controls Deactivated in Timer OFF Condition:

Yes  No  I Don't Know

Was the Local Override Tested for these Area Controls?: Yes  No  I Don't Know

Was The Timer Override Time-out Correct? Yes  No  I Don't Know

Was the Timer Program Restored to Original Settings? Yes  No  I Don't Know



## NLCAA AUDIT FORM—Page 4

## 7 - OCCUPANT SENSING DEVICES - THE SITE UNDERGOING ACCEPTANCE TESTING ...

Contained Occupancy Sensors? Yes  No  I Don't Know

If "No" Skip This Section

Did All Occupancy Sensors Tested Function Correctly? Yes  No  I Don't Know

If "No", Were the Defective Sensors Corrected? Yes  No  I Don't Know

Were All Tested Sensors Positioned Properly? Yes  No  I Don't Know

If "No", Were the Improper Sensors Corrected? Yes  No  I Don't Know

Was the Maximum Time-out Checked on All Tested Sensors?

Yes  No  I Don't Know

Was the Maximum Time-out on Tested Sensors Between

35 Minutes and 45 Minutes? Yes  No  I Don't Know

On the First Occupant Sensing Device Listed as Being Tested – The "visible status indicator"

Required by: 1605.3 (L) (2) (G):

Was Present and Functioning: Yes  No  I Don't Know

Was Present but Disabled: Yes  No  I Don't Know

Was Absent: Yes  No  I Don't Know

On the First Occupant Sensing Device Listed as Being Tested – Was There a Manual Switch Allowing All Lights to Be Manually Turned Off?

Yes  No  I Don't Know

## 8—MULTI-LEVEL CONTROLS:

Did the Building Have One or More Multi-Level Controls Installed in

Controlling Lighted Areas? : Yes  No  I Don't Know

If "No" Skip the Remainder of This Section ...

If "Yes" Answer the Following Questions for Any System or Area YOU Select, NOT Containing Track Lighting Providing General Lighting as Defined in Section 100.1 ...

Was The General Lighting Provided by a Continuously Dimmed System?

Yes  No  I Don't Know

If "Yes" Skip the Remainder of This Section ...

If "No" Answer the Following Questions:

Were Individual LUMINAIRES Switched to Provide Multi-level Control?

Yes  No  I Don't Know

Were Individual LAMPS in LUMINAIRES Switched to Provide Multi-level Control?

Yes  No  I Don't Know

## NLCAA AUDIT FORM – Page 5

## 9 – AUTOMATIC DAYLIGHTING SYSTEMS – THE SITE UNDERGOING ACCEPTANCE TESTING ...

Contained Daylighting System(s)? Yes  No  I Don't Know

If "No" Skip This Section

Did All "Photosensors" Tested Function Correctly? Yes  No  I Don't Know

If "No", Were the Defective Sensors Corrected? Yes  No  I Don't Know

Were All Tested Photosensors Positioned Properly? Yes  No  I Don't Know

If "No", Were the Improper Sensors Corrected? Yes  No  I Don't Know

Identify An Automatic Daylighting System of your choice; Answer the Following Questions:



Is the Area Served by a Continuously Dimmed System? Yes  No  I Don't Know

If "No", Skip to the Next Section, Otherwise Answer the Following Questions:

Is the Area Open or Closed Loop Controlled? Open-Loop  Closed-Loop  I Don't Know

If "Open-Loop", Answer the "**OPEN-LOOP: Question**", Also Answer the Following Questions:

Was a "Design Illumination" Value Found for this Area? Yes  No  I Don't Know

Was the "Reference Illumination" Measured? Yes  No  I Don't Know

If "Yes"; What was its Value in Foot-Candles? \_\_\_\_\_ fc \_\_\_\_\_ n/a  I Don't Know

If "No"; What was the Reference Power Draw? \_\_\_\_\_ VA or W \_\_\_\_\_ n/a  I don't Know

The Power Reduction From "No Daylight (Full Output)" to "Full Daylight" Conditions was:

\_\_\_\_\_%; or \_\_\_\_\_ I Don't Know

Did this System Pass the "Partial Daylight" Test? Yes  No  I Don't Know

How was the "No Daylight" Power/Illumination Determined?

Covered Fenestration

Tested at Night

Adjusted Setpoints Locally

System Integrator Adjusted Setpoints

I Don't Know or Other Method

**OPEN LOOP: Question:**

How was the "Full Daylight" Test Accomplished?

Sensor Ratio

Tested in Full daylight

Adjusted Setpoints Locally

System Integrator Adjusted Setpoints

I Don't Know

## NLCAA AUDIT FORM – Page 6

~~10 – AUTOMATIC DAYLIGHTING SYSTEMS – THE SITE UNDERGOING ACCEPTANCE TESTING ...~~~~Contained a Stepped Dimming/Switching Daylighting System(s)?~~~~Yes  \_\_\_\_\_ No  I Don't Know~~ ~~If "No" Skip This Section ...~~~~Answer the Following Questions:~~~~Is the Area Open or Closed Loop Controlled? \_\_\_\_\_ Open Loop  Closed Loop  I Don't Know~~ ~~If "Open Loop", Answer the "**OPEN LOOP: Question**", Also Answer the Following Questions:~~~~Was a "Design Illumination" Value Found for this Area? Yes  \_\_\_\_\_ No  I Don't Know~~ ~~Was the "Reference Illumination" Measured? \_\_\_\_\_ Yes  \_\_\_\_\_ No  I Don't Know~~ ~~If "Yes"; What was its Value in Foot-Candles? \_\_\_\_\_ fc \_\_\_\_\_ n/a  I Don't Know~~ ~~If "n/a"; What was the Reference power Draw? \_\_\_\_\_ VA or W \_\_\_\_\_ n/a  I don't Know~~ ~~The Power Reduction From "No Daylight" to "Full Daylight" Conditions was:~~~~\_\_\_\_\_ %; \_\_\_\_\_ or I Don't Know~~ ~~Did this System Pass the "Partial Daylight" Test? \_\_\_\_\_ Yes  \_\_\_\_\_ No  I Don't Know~~ ~~How was the "No Daylight" Power/Illumination Determined?~~~~Covered Fenestration~~ ~~Covered Sensor~~ ~~Tested at Night~~ ~~Adjusted Setpoints Locally~~ ~~System Integrator Adjusted Setpoints~~ ~~Don't Know or Other Method~~ ~~How Many Steps Were Tested During the "Partial Daylight" Test: \_\_\_\_\_ I Don't Know~~ ~~If Less Than 3 Steps; Did the Area Contain Track Lighting? Yes  \_\_\_\_\_ No  I Don't Know~~ ~~Did the Area Contain Less Than .3Watts/ft<sup>2</sup> of LPD? \_\_\_\_\_ Yes  \_\_\_\_\_ No  I Don't Know~~ ~~"Yes", How do You Know This?~~~~Was the Area a Classroom? \_\_\_\_\_ Yes  \_\_\_\_\_ No  I Don't Know~~ ~~**OPEN LOOP: Question:**~~~~How was the "Full Daylight" Test Accomplished?~~~~Sensor Ratio~~ ~~Tested in Full daylight~~ ~~Adjusted Setpoints Locally~~ ~~System Integrator Adjusted Setpoints~~ ~~I Don't Know~~ ~~Other Method: \_\_\_\_\_~~

## NLCAA AUDIT FORM – Page 7

**11 – AUTOMATIC DEMAND RESPONSE SYSTEM(S):**

Did the Project Under Test Contain Automatic Demand Response Equipment(s)?

Yes  \_\_\_\_\_ No  I Don't Know 

If "No" Skip This Section ...

For the Largest Demand Response Controlled Area, (by Floor Area Square Footage),

Answer the Following Questions:

What was the Area (in ft<sup>2</sup>) of the Space in Question? \_\_\_\_\_ (ft<sup>2</sup>) I Don't Know Is the Area in a Daylit Space? \_\_\_\_\_ Yes  \_\_\_\_\_ No  I Don't Know **DURING THE FULL OUTPUT TEST:**

What was the Full Output Illuminance Prior to Demand Response Testing?

\_\_\_\_\_ fc \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Full Output Power Draw Prior to Demand Response Testing?

\_\_\_\_\_ V-A or W \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Full Output Illuminance After Initiating Demand Response Testing?

\_\_\_\_\_ fc \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Full Output Power Draw After Initiating Demand Response Testing?

\_\_\_\_\_ V-A or W \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know Was the "Daylight Illumination" Measured? \_\_\_\_\_ Yes  \_\_\_\_\_ No  I Don't Know If "Yes"; What was its Value in Foot-Candles? \_\_\_\_\_ fc \_\_\_\_\_ n/a  I Don't Know 

What was Your Calculated Percent Power Reduction for This Area \_\_\_\_\_ %

**DURING THE MINIMUM OUTPUT TEST:**

What was the Minimum Output Illuminance Prior to Demand Response Testing?

\_\_\_\_\_ fc \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Minimum Output Power Draw Prior to Demand Response Testing?

\_\_\_\_\_ V-A or W \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Minimum Output Illuminance After Initiating Demand Response Testing?

\_\_\_\_\_ fc \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Minimum Output Power Draw After Initiating Demand Response Testing?

\_\_\_\_\_ V-A or W \_\_\_\_\_ or, \_\_\_\_\_ I Don't Know 

What was the Percentage of Full Design Output Power for This Area After Initiating a Demand Response Test for the Minimum Output Test?

\_\_\_\_\_ %

## NLCAA AUDIT FORM—Page 8

~~12 – OUTDOOR SHUT-OFF CONTROLS – THE SITE UNDERGOING ACCEPTANCE TESTING ...~~~~Contained One or More Automatic Time Switches for Outdoor Shut-OFF Control?~~~~Yes  ————— No  I Don't Know~~ ~~If "No" Skip This Section ...~~~~Answer the Following Questions:~~~~Was the Timer an Astronomical Time Switch? ————— Yes  ————— No  I Don't Know~~ ~~If Yes; Were the ON and OFF Times Programmed for Within 99 Minutes of Sunrise and Sunset?~~~~Yes  ————— No  I Don't Know~~ ~~If Yes; How was This Determined? ————— Examined Programming —————~~ ~~Observed Controlled Lighting —————~~ ~~Consulted with System Integrator —————~~ ~~Other Method: \_\_\_\_\_~~ ~~Was a Timer Present for Night Time Shut-OFF? ————— Yes  ————— No  I Don't Know~~ ~~Was the Controlled Lighting OFF During Daylight Hours?~~~~Yes  ————— No  I Don't Know~~ ~~13 – OUTDOOR SHUT-OFF CONTROLS – THE SITE UNDERGOING ACCEPTANCE TESTING ...~~~~Contained One or More Photocontrols for Outdoor Shut-OFF Control?~~~~Yes  ————— No  I Don't Know~~ ~~If "No" Skip This Section ...~~~~Answer the Following Questions:~~~~Did Compliance Form: CEC-NRCC-LTO-02-E Indicate that any "self-contained lighting control devices" are "certified to the Energy Commission"? ————— Yes  ————— No  I Don't Know~~ ~~If No; Did Compliance Form: CEC-NRCC-LTO-02-E Indicate That an Installation Certificate was Submitted for a Lighting Control system or Energy Management Control System for Outdoor Lighting?~~~~Yes  ————— No  I Don't Know~~ ~~If Yes; Did Installation Form: CEC-NRCC-LTO-02-E Indicate That the Lighting Control system or Energy Management Control System for Outdoor Lighting "meets all applicable requirements for (the/each) application for which (it/they) are installed"?~~~~Yes  ————— No  I Don't Know~~ ~~Was the Controlled Lighting OFF During Daylight Hours?~~~~Yes  ————— No  I Don't Know~~

14 — OUTDOOR SHUT-OFF CONTROLS — THE SITE UNDERGOING ACCEPTANCE TESTING ...

... Contained One or More Motion Sensors for Outdoor Shut-Off or Part-Night Control?

Yes  No  I Don't Know

If "No" Skip This Section ...

Answer the Following Questions:

Were ALL Motion Sensors Tested

Yes  No  I Don't Know

15 — DATE THIS FORM WAS COMPLETED:

\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(mm) (dd) (yyyy)

16 — Lighting Controls Acceptance Test Technician and Employer Who Prepared This Form:

Employer \_\_\_\_\_ certification # \_\_\_\_\_

Field Technician \_\_\_\_\_ certification # \_\_\_\_\_



## **~~ACCEPTANCE TEST TECHNICIAN EMPLOYER Audit Procedure~~**

A Test Technician Employer is required to audit a Test Technician's work when:

- 1) ~~It is the Acceptance Test Technician's first job after their certification, (or recertification), as a Field Technician, or;~~
- 2) ~~The Acceptance Test Technician has performed 10 or more Acceptance Testing jobs within the last 30 calendar days, or;~~
- 3) ~~The Acceptance Test Technician has not had his or her work audited within the last 3 years, or;~~
- 4) ~~When directed by NLCAA or their agents for any reason.~~

The audit process shall consist of:

- 1) ~~The Field Technicians Employer shall accompany the Field Technician on their next Acceptance Testing job and review the Acceptance Testing Forms submitted; or review the Acceptance Testing Forms submitted by the Field Technician on his or her most previous Acceptance Testing job; and complete and transmit to NLCAA the required audit form, completed and "signed" by both Employer and Field Technician, within 90 calendar days of notice to an Employer that an Audit Form Submission is required for the Field Technicians' next completed, (or most previous), job, when required based on the paragraph above.~~
- 2) ~~NLCAA or their agents may, at their discretion, notify the Acceptance Test Technician Employer within 30 calendar days of receipt of the audit form that a further inspection of the Acceptance Test Technician's work is required.~~

If the Acceptance Test Technician Employer is notified that a further inspection of an Acceptance Test Technician's work is required — the inspection process shall consist of a Field Inspection<sup>4</sup>:

- 1) ~~The Acceptance Test Technician Employer shall arrange for NLCAA or their agents to accompany an Acceptance Test Technician of her or his choosing on their next real assignment and observe their actions as part of the Field Inspection Process.~~

Please note that monetary charges will be incurred for the Field Inspection.

In the event that the NLCAA required Field Inspection results are found to be unsatisfactory:

NLCAA shall submit to itself a complaint form concerning the individual(s) involved and the formal complaint process shall be set in motion by NLCAA.



## Oversight Procedures

Per our CEC application to become an approved ATTCP, NLCAA oversees the ATEs and ATTs in two ways. There are Desk Audits and Field Inspections.

### Desk Audits:

The Desk Audit process allows for a review of the NRCA Forms completed for the job in question for signs of “irregularities” or “inconsistencies” as determined by an NLCAA approved auditor or a computer “expert system”.

The ATE may accompany the ATT on the required Acceptance Testing job and review the Acceptance Testing Forms submitted; or review the Acceptance Testing Forms submitted by the ATT after job completion. This ensures that the ATT and ATE maintain communication through the years.

### Desk Audit Process:

NLCAA or their agents will require a Desk Audit to be completed according to the following schedule:

- ATT's 1st project after certification.
- A random sample of no less than 1% of each ATT's completed projects. \*
- ATT's 5th job after recertification (not to be the same project as a Field Inspection)

\*The Random Sample will be conducted using the Pseudo Random Number Generator (PRNG)

Pseudo Random Number Generator (PRNG) refers to an algorithm that uses mathematical formulas to produce sequences of random numbers. PRNGs generate a sequence of numbers approximating the properties of random numbers.

Step 1: ATE and ATT complete the required job to initiate a Desk Audit per the Oversight Procedures.

Step 2: Within seven days of project completion, NLCAA sends the ATE and/or ATT notification that a Desk Audit will be completed for the project and payment is due.

Step 3: The ATT and/or ATE must submit payment for the Desk Audit within thirty days of Desk Audit Notification. If the Audit payment is not received, NLCAA will initiate the complaint procedure against the ATT and/or ATE.

Step 4: Within thirty days of project completion, NLCAA or their agents will review the Compliance Forms and an NLCAA representative will contact the ATT and/or ATE regarding the results.





Step 5: If a discrepancy is detected in the Acceptance Testing Form(s) against Testing procedures, the parties in question shall be contacted via telecommunications by an NLCAA approved auditor.

Should the response(s) of the audited ATE and/or ATT be deemed unsatisfactory, the auditor may require a second Desk Audit and/or a Field Inspection including all applicable fees.

Step 6: If, after the secondary oversight procedures are conducted, the results are still unsatisfactory, the NLCAA auditor will initiate the Complaint Procedure with applicable fees.

### Field Inspections:

A Field Inspection consists of a minimum 2-hour building site visit during which the ATT performing acceptance testing will be observed and interviewed by an approved NLCAA inspector. The Field Inspection may include, but not be limited to, any of the following: verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the ATT performing acceptance tests.

This Field Inspection should occur on the next possible occasion after the ATE and/or ATT have been notified that a Field Inspection is required. The ATE is encouraged, but not required, to be onsite during the Field Inspection.

The NLCAA approved inspector will have a Field Inspection checklist to document what Acceptance Tests were performed and if the ATT accurately performed the testing procedures.

*"At NLCAA we use the Field Inspections as a mentoring tool. NLCAA strives to continue teaching in any way we can. While the representative is in the field with the ATT, it is NLCAA's goal to not only complete the required Field Inspection, but to also find ways of helping and improving the ATT's testing capabilities whether they are just starting out or are seasoned testers."*

- Michael Scalzo, Executive Director

### Field Inspection Process:

NLCAA or their agents will require a Field Inspection to be conducted according to the following schedule:

- ATT's 2nd to 5th project after certification.
- A random sample of no less than 1% of each ATT's completed projects. \*
- ATT's 1st to 25th job after recertification (not to be the same project as a Desk Audit).

\*The Random Sample will be conducted using the Pseudo Random Number Generator (PRNG)

Pseudo Random Number Generator (PRNG) refers to an algorithm that uses mathematical formulas to produce sequences of random numbers. PRNGs generate a sequence of numbers approximating the properties of random numbers.



- Step 1: ATT hits the trigger to initiate a Field Inspection per the Oversight Procedures.
- Step 2: NLCAA or its agent notifies the ATE and/or ATT that a Field Inspection is required to be scheduled on the next possible project.
- Step 3: The ATT and/or ATE must schedule the Field Inspection and pay applicable fees to NLCAA.
- Step 4: Approved NLCAA inspector conducts the Field Inspection with the ATT (the ATE is encouraged, but not required, to be onsite during Inspection). The inspector completes the Field Inspection checklist and submits it to the NLCAA database.
- If the results are deemed unsatisfactory by the Inspector, the Checklist will be reviewed by the NLCAA Executive Director for further actions.
- Step 5: The ATT and/or ATE will be notified of the Inspection results within twenty days after completion.
- If the results are deemed unsatisfactory by the Executive Director, a second Field Inspection or Complaint Procedure may be required with applicable fees.
- Step 6: If, after a secondary Field Inspection is conducted, the results are still unsatisfactory, the NLCAA inspector and/or Executive Director will initiate the Complaint Procedure with applicable fees.

~~NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA~~  
~~COMPLAINT FORM~~

Complainant Information

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Telephone No. \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Location of work, if different: \_\_\_\_\_

Date, time and place of event leading to complaint:

Detailed account of occurrence (include names of persons involved, if any):

Please state building codes, procedures, or guidelines that you feel have been violated:

Proposed solution to complaint, if any:

The complainant should retain a copy of this form for his/her records. The signature below indicates that you are filing a complaint and any information on this form is truthful.

\_\_\_\_\_  
Complainant Signature \_\_\_\_\_ Date

\_\_\_\_\_  
Received by \_\_\_\_\_ Date



National Lighting Contractors  
Association of America

## **NLCAA COMPLAINT FORM**

Complaint date:

Complaint Fee: \$150

You are receiving this form because a complaint has been filed through NLCAA. Please see the Complaint Procedures on the next steps to address this complaint. You must respond within 7 days.

### **Complaint Filed Against**

Acceptance Test Technician/Employer (ATT/ATE) Name:

ATT/ATE Certification Number:

Telephone Number:

E-mail Address:

Company:

### **If complaint is filed against ATT:**

ATE Name:

ATE Certification Number:

Telephone Number:

E-mail Address:

Company:

### **Complaint Description:**

### **Building codes, procedures or guidelines that may have been violated:**

To respond, please contact:

Brianna Kadar - Program Director

[bkadar@nlcaa.org](mailto:bkadar@nlcaa.org)

## **~~National Lighting Contractors Association of America~~**

### **~~Acceptance Test Technician and Acceptance Test Employer Complaint Procedure~~**

#### **~~Purpose and Objective~~**

~~The purpose of this complaint procedure is to provide a mechanism for resolving disputes arising from the use and performance of National Lighting Contractors Association of America (NLCAA) Certified Lighting Controls Acceptance Test Technicians and/or their Employers.~~

~~It is recognized that issues may arise regarding the performance of lighting controls acceptance testing and this complaint procedure is intended to assist in addressing and resolving those complaints.~~

~~The objective of this complaint procedure is to make available to the public and building departments a process to facilitate a fair, impartial and expeditious dispute resolution. This procedure does not limit or infringe on any other rights the parties may have.~~

#### **~~Definition~~**

~~A complaint is a formal written notification of a problem or concern regarding an act, omission, situation or other behavior by a certified field technician or his/her employer.~~

#### **~~Complaint Procedure~~**

~~Step 1: Complete the Complaint Form – what happened or did not happen, name of individual(s) and company involved, dates events took place, location, and an explanation of issues.~~

~~Step 2: Within 3 business days of receiving the complaint, a copy shall be sent to the Acceptance Test Technician and his/her employer. The Complaint shall be sent by e-mail, if~~

~~address is known, and by certified mail.~~

~~Step 3: Within 20 business days of receipt of the Complaint, the certified technician and certified technician's employer shall submit written responses addressing the concerns raised in the Complaint.~~

~~Step 4: Once responses are received, a committee of three (3) NLCAA Directors (at least one contractor representative and at least one instructor representative) shall review and evaluate the merits of the Complaint. The committee shall determine the extent of the infraction, if any, and appropriate disciplinary action. A summary of findings and recommendation of actions shall be sent, via certified mail, to the ATT, ATT Employer, and complainant within 20 business days.~~

~~Step 5: The ATT, ATT employer and complainant can either 1) accept the committee's findings and actions, or 2) file an appeal in writing. Any appeal to the NLCAA's actions shall be filed within 20 business days of receipt of the ruling.~~

~~Step 6: Within 15 business days of receiving the appeal, the NLCAA shall issue a final dispositive ruling on the matter, which shall be binding on all parties. The appeal review shall be performed by a single NLCAA director.~~

### **Post Hearing Matters**

~~The NLCAA shall maintain records of the proceedings for six (6) years.~~



## ATT/ATE Complaint Procedures

### Purpose and Objective:

The purpose of this complaint procedure is to provide a mechanism for resolving disputes arising from the use and performance of National Lighting Contractors Association of America (NLCAA) ATTs and/or ATEs. It is recognized that issues may arise regarding the performance of lighting controls acceptance testing. This complaint procedure is intended to assist in addressing and resolving those complaints.

The objective of this complaint procedure is to make available to the public and building departments a process to facilitate a fair, impartial and expeditious dispute resolution. This procedure does not limit or infringe on any other rights the parties may have.

Definition: A complaint is a formal written notification of a problem or concern regarding an act, omission, situation or other behavior by an NLCAA ATT and/or ATE. Complaints may be initiated by persons both within and outside of NLCAA.

Step 1: Complaint Form is submitted to, or created by, NLCAA or their agent.

Step 2: Within seven business days of Complaint Form receipt, (or generation), by NLCAA or their agent; a notification, (including the contents of the Complaint Form), shall be sent to the ATE and/or ATT concerned. This notification shall be sent via telecommunications. If deemed by NLCAA or their agent, the ATT and/or ATE involved may be placed on an immediate temporary suspension until the final disposition of the Complaint has been issued.

Step 3: The ATT and/or ATE notified, shall respond within seven business days of the receipt of the Complaint Notification. This response shall be in writing or via telecommunications.

Step 4: Once the written responses are received, a committee of a minimum of three NLCAA Directors shall review and evaluate the merits of the Complaint. The committee shall determine the extent of the infraction, if any, and appropriate disciplinary action.

A summary of findings and disciplinary actions shall be sent, via telecommunications, to the ATE and/or ATT in question within twenty business days.

Step 5: Upon receipt of NLCAA's findings: the ATE and/or ATT in question shall have twenty business days to appeal the decision of NLCAA regarding any disciplinary action recommended. This appeal shall be in writing or via telecommunications.

Step 6: Within twenty business days of receiving the appeal from the ATE and/or ATT in question, NLCAA shall issue a final dispositive ruling on the matter, which shall be binding on all parties. The appeal review shall be performed by a minimum of three NLCAA directors.

A disciplinary action spreadsheet will be made available upon request for perusal by CEC staff.

Post Hearing Matters:

The NLCAA shall maintain records of the proceedings for six years.





## ***ACCEPTANCE TEST TECHNICIAN***

### **Prequalification based on Military Experience, Certification, or Degree Earned**

If applicants desiring prequalification have served in any of the ratings listed below, (in conjunction with other sufficient verifiable experience in lighting controls and electrical systems): They will be considered to be *Prequalified* to take NLCAA's course of instruction, (including preliminary online courses †), to become eligible for state certification as a Lighting Controls Acceptance Test Technician.

With additional experience in "lighting controls and electrical systems", (10-103-A(c)-3-B.(iii)), persons in the following military ratings should have sufficient training to complete the NLCAA Lighting Controls Acceptance Test technician course.

#### **~~U.S. NAVY~~**

~~ETx~~

~~FTx~~

~~STx~~

~~IS(T)~~

~~CTx~~

~~EMx~~

~~Cyber Warfare Engineer~~

Where "x" is any string of alphanumeric or special characters

#### **~~U.S. Coast Guard~~**

~~Avionics Electrical Technician~~

~~Electrician's Mate~~

~~Electronics Technician~~

~~Information Systems Technician~~

† "Preliminary online courses" are: The Lighting Controls Association, [[www.lightingcontrolsassociation.org](http://www.lightingcontrolsassociation.org)]; "Education Express" courses currently located at: [<http://aboutlightingcontrols.org/education>].

Courses ~~EE-101; EE-102 §1, §2; EE-103 §1, §2; EE-105; EE-110; EE-201 (70% to Pass)~~

**~~U.S. Marines~~**

Avionics

Aircraft Maintenance RADAR and/or Navigation and/or Weapons

Aircraft Communication Systems Technician

**~~U.S. ARMY~~**

13M

14S

14T

25X

94X

Where “X” stands for any alphabetic character

**~~U.S. Airforce~~**

Aerospace Ground Equipment

Airborne (ISR)

Aircraft Electrical and Environmental Systems

Avionics Systems

Cable and Antenna Systems

Client Systems

Cybertransport Systems

Avionics Test and Components

Electronic Signals Intelligence Explorer

Ground RADAR Systems

Electrical Systems

Electrical Power Production

**U.S. Airforce** ... Continued~~Precision Measurement Equipment Laboratory~~~~Radio Frequency Transmission Systems~~~~Scientific Applications Specialist~~**Military Sealift Command**~~X~~ Radio Electronics TechnicianWhere “~~X~~” is any string of alphanumeric or special characters or none

~~Additionally, persons holding the following Federal Certifications, (in conjunction with other verifiable experience in lighting controls), shall be granted prequalification to the NLCAA course of study for Lighting Controls Acceptance Test Technician upon completion of the required online prequalification courses †:~~

~~FCC GROL (with or without Shipboard RADAR endorsement)~~~~FAA Airman’s Certificate~~

~~Additionally, persons holding the following State Certifications, (in conjunction with other sufficient verifiable experience in lighting controls), shall be granted prequalification to the NLCAA course of study for Lighting Controls Acceptance Test Technician upon completion of the required online prequalification courses †:~~

~~Nonresidential Lighting Technician who has attended and successfully completed a State Approved School for the Whole Nonresidential Lighting Technician course of study~~~~Acceptance Test Technician accreditation from an organization other than NLCAA~~

~~Additionally, persons holding the following Certifications, (in conjunction with other sufficient verifiable experience), shall be granted prequalification to the NLCAA course of study for Lighting Controls Acceptance Test Technician upon completion of the required online prequalification courses †:~~

~~CALCTP (50 Hour) Advanced Lighting Course~~

~~† “Preliminary online courses” are: The Lighting Controls Association, [www.lightingcontrolsassociation.org]; “Education Express” courses – currently located at: [http://aboutlightingcontrols.org/education].~~

~~Courses EE-101; EE-102 §1,§2; EE-103 §1,§2; EE-105; EE-110; EE-201 (70% to Pass)~~

**Prequalification Based on Higher Education**

Individuals possessing the *minimum* degrees in the following subjects, (in conjunction with other sufficient verifiable experience in lighting controls and electrical systems), will be considered prequalified for the NLCAA Lighting Controls Acceptance Test Technician course upon completion of the required online prequalification courses †.

~~Bachelors of Science in Electrical Engineering~~

~~Bachelors of Science in Mechanical Engineering~~

~~Bachelors of Science in Chemical Engineering~~

~~Bachelors of Science in Physics~~

~~Bachelors of Science in Computer Science~~

~~Bachelors of Science in Chemistry~~

~~Bachelors of Science in Mathematics~~

~~Bachelors of Science in Geology/Geophysics~~

~~Masters of Science in Industrial Engineering~~

~~Masters of Science in Environmental Engineering~~

~~Masters of Science in Philosophy~~

†“Preliminary online courses” are: The Lighting Controls Association, [[www.lightingcontrolsassociation.org](http://www.lightingcontrolsassociation.org)]; “Education Express” courses – currently located at: [<http://aboutlightingcontrols.org/education>].

~~Courses EE-101; EE-102 §1,§2; EE-103 §1,§2; EE-105; EE-110; EE-201 (70% to Pass)~~



**~~ACCEPTANCE TEST TECHNICIAN Pre-qualification Warning Form~~**

It is the ~~opinion~~ of the NLCAA director or agent having the privilege of examining the applicant listed below during the pre-qualification process that said applicant *might* not be able to complete the course of instruction for: Lighting Controls Acceptance Test Technician as defined by the 2013 Building Energy Efficiency Standards section 10-102.

Further, it is the ~~opinion~~ of the NLCAA director or agent having the privilege of examining the applicant listed below during the pre-qualification process that said applicant *might* not be able to fulfill the duties of a Lighting Controls Acceptance Test Technician as specified in the 2013 Building Energy Efficiency Standards section 130.4. (c). †

NAME OF APPLICANT: \_\_\_\_\_

SIGNATURE OF NLCAA Director or Agent: \_\_\_\_\_

† Any prior training or professional experience notwithstanding, any NLCAA Director or Agent shall not be considered a Medical Professional, Professional Counselor, or Practitioner in any field that might allow rendering a professional judgment. The ~~opinion~~ rendered above shall be considered a personal opinion, and will not reflect upon NLCAA as an organization. Said ~~opinion~~ shall be considered non-binding, and shall be rendered *null and void* upon said applicant named above signing an appeal form — the “Pre-qualification Appeal Form”. Signing the “Pre-qualification Appeal Form” shall make the applicant named above immediately eligible to pay the required fees and engage in the training course for Acceptance Test Technician assuming all other aspects of the prequalification process are acceptable.



**~~ACCEPTANCE TEST TECHNICIAN Pre-qualification Appeal Form~~**

~~It is the opinion of the applicant signing below that she or he *will* be able to complete the course of instruction for: Lighting Controls Acceptance Test Technician as defined by the 2013 Building Energy Efficiency Standards section 10-102.~~

~~Further, it is the opinion of the applicant signing below that said applicant *will* be able to fulfill the duties of a Lighting Controls Acceptance Test Technician as specified in the 2013 Building Energy Efficiency Standards section 130.4. (c). †~~

~~I require a personal assistant to aid me in completing Lighting Controls Acceptance Testing:~~

~~I certify here that said personal assistant will *also* be certified as a Lighting Controls Acceptance Testing Technician through a state-approved Lighting Controls Acceptance Test Technician Provider and will be present to assist me during the course of Lighting Controls Acceptance Testing:~~

~~SIGNATURE OF APPLICANT (if applicable): \_\_\_\_\_~~

~~I require a “reasonable accommodation” on a job site to allow me to complete Lighting Controls Acceptance Testing:~~

~~I certify here that if, in my opinion, a jobsite will not be accessible to me — or will prove dangerous to me — I will decline the job:~~

~~SIGNATURE OF APPLICANT (if applicable): \_\_\_\_\_~~

~~I disagree with the opinion of NLCAA or their agent(s) expressed on the “warning” form and feel competent to complete Lighting Controls Acceptance Testing:~~

~~SIGNATURE OF APPLICANT (required): \_\_\_\_\_~~

~~I witness and accept this appeals form:~~

~~SIGNATURE OF NLCAA Director or Agent: \_\_\_\_\_~~

~~† The applicants signature(s) on this form will render the “warning” form impotent and allow the collection of appropriate fees from the applicant and allow he or she to commence with the course of training assuming all other aspects of the prequalification process are acceptable.~~



**ACCEPTANCE TEST TECHNICIAN EMPLOYER**

**Associate Contract**

I \_\_\_\_\_, acting as a director, agent, or proxy of NLCAA, (The National Lighting Contractors Association of America), do hereby pledge my support for the Lighting Controls Acceptance Test Technician Employer candidate named below; and do further certify that said individual has successfully completed all NLCAA prequalification criteria per § 10 103 A (c): as determined by NLCAA.

NLCAA Director, or agent, or proxy initials \_\_\_\_\_

I \_\_\_\_\_, as a candidate for NLCAA certification as a Lighting Controls Acceptance Test Technician Employer, do hereby agree to read and review the remainder of this contract.

Lighting Controls Acceptance Test Technician Employer candidate initials \_\_\_\_\_

I \_\_\_\_\_, hereby acknowledge that I will not consider any charges for use of the NLCAA Acceptance Testing Data Entry Software as a “compelling reason” to not use, or to have a NLCAA Certified Lighting Controls Acceptance Test Technician under my supervision not use, the NLCAA Acceptance Testing Data Entry Software.

Lighting Controls Acceptance Test Technician Employer candidate initials \_\_\_\_\_

I, as a candidate for NLCAA Lighting Controls Acceptance Test Technician Employer do hereby agree to the requirements and obligations to NLCAA and the State of California as detailed in the literature e-mailed to me upon applying for certification. I have read this information and/or viewed the online presentation: “Your Responsibilities as a Lighting Controls Acceptance Test Technician Employer”.

I understand my obligations pertaining to:

- Audit Procedures
- Complaint Procedures
- Field Inspections
- Form Reviews
- Recertification
- Retraining

Lighting Controls Acceptance Test Technician Employer candidate initials \_\_\_\_\_

Certification Candidate \_\_\_\_\_ Date \_\_\_\_\_



## Acceptance Test Employer Associate Contract

This agreement is made between the National Lighting Contractors Association of America (NLCAA) and \_\_\_\_\_, hereby called the ATE candidate.

The ATE candidate agrees to the requirements and obligations to NLCAA and the State of California as detailed in the literature received during the ATE course and in the course work.

The ATE candidate understands their obligations pertaining to (Please Check):

- Oversight Procedures
- Complaint Procedures
- Recertification and Renewal
- Testing Procedures

The ATE candidate shall follow all NLCAA policies and procedures and Energy Code requirements.

The ATE must use NLCAA testing software when preparing an acceptance test and utilize NLCAA generated NRCA forms, The ATE candidate is aware that each individual building permit will require its own testing software project number.

The ATE candidate shall ensure that all personal and company contact information is kept up to date on the NLCAA dashboard for their account and all ATTs under their supervision.

NLCAA shall provide oversight and assistance to the ATE candidate as needed and required as long as the ATE maintains their NLCAA certification.

NLCAA Representative Signature: Michael Scalzo

NLCAA Representative Name: Michael Scalzo

NLCAA Title: Executive Director

ATE Candidate Signature: \_\_\_\_\_

ATE Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_





**ACCEPTANCE TEST TECHNICIAN**

**Associate Contract**

I \_\_\_\_\_, acting as a director, agent, or proxy of NLCAA, (The National Lighting Contractors Association of America), do hereby pledge my support for the Lighting Controls Acceptance Test Technician candidate named below; and do further certify that said individual has successfully completed all NLCAA prequalification criteria per § 10 103 A (c): as determined by NLCAA.

NLCAA Director, or agent, or proxy initials \_\_\_\_\_

I \_\_\_\_\_, as a candidate for NLCAA certification as a Lighting Controls Acceptance Test Technician, do hereby agree to read and review the remainder of this contract.

Lighting Controls Acceptance Test Technician Employer candidate initials \_\_\_\_\_

I \_\_\_\_\_, hereby acknowledge that I will not consider any charges for use of the NLCAA Acceptance Testing Data Entry Software as a “compelling reason” to not use, or to have a NLCAA Certified Lighting Controls Acceptance Test Technician Employer supervising me not use, the NLCAA Acceptance Testing Data Entry Software.

Lighting Controls Acceptance Test Technician Employer candidate initials \_\_\_\_\_

I, as a candidate for NLCAA Lighting Controls Acceptance Test Technician do hereby agree to the requirements and obligations to NLCAA and the State of California as detailed in the literature e-mailed to me upon applying for certification. I have read this information and/or viewed the online presentation: “Your Responsibilities as a Lighting Controls Acceptance Test Technician”.

I understand my obligations pertaining to:

Audit Procedures  Complaint Procedures  Field Inspections  Form Reviews

Recertification  Retraining

Lighting Controls Acceptance Test Technician candidate initials \_\_\_\_\_

Certification Candidate \_\_\_\_\_ Date \_\_\_\_\_



National Lighting Contractors  
Association of America

## Acceptance Test Technician Contract

This agreement is made between the National Lighting Contractors Association of America (NLCAA) and \_\_\_\_\_, hereby called the ATT candidate.

The ATT candidate agrees to the requirements and obligations to NLCAA and the State of California as detailed in the literature received during the ATT course and in the course work.

The ATT candidate understands their obligations pertaining to (Please Check):

- |   |  |
|---|--|
| <input type="checkbox"/> Oversight Procedures | <input type="checkbox"/> Recertification and Renewal |
| <input type="checkbox"/> Complaint Procedures | <input type="checkbox"/> Testing Procedures          |

The ATT candidate shall follow all NLCAA policies and procedures and Energy Code requirements.

The ATT must use NLCAA testing software when performing an acceptance test and utilize NLCAA generated NRCA forms, The ATT candidate is aware that each individual building permit will require its own testing software project number.

The ATT candidate shall ensure that all their personal and company contact information is kept up to date on the NLCAA dashboard.

NLCAA shall provide oversight and assistance to the ATT candidate as needed and required as long as the ATT maintains their NLCAA certification.

NLCAA Representative Signature: Michael Scalzo

NLCAA Representative Name: Michael Scalzo

NLCAA Title: Executive Director

ATT Candidate Signature: \_\_\_\_\_

ATT Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_



## **~~LIGHTING CONTROLS ACCEPTANCE TEST PROCESS~~**

### **Building Department Survey Form**

---

As a member of the Authority Having Jurisdiction responsible for the issuance of a Building Permit for the Project having undergone acceptance testing as evidenced by the attached acceptance testing forms, the National Lighting Contractors Association of America is interested in any comments or feedback you might have:

Please return this form to: \_\_\_\_\_ NLCAA

Or visit our Website at: \_\_\_\_\_ 3301 E. Hill Street, Suite 408

[www.NLCAA.org](http://www.NLCAA.org) to comment \_\_\_\_\_ Signal Hill, CA \_\_\_\_\_ 90755

## NLCAA Random Selection Process

The Random Selection process for both “Random Form Reviews<sup>1</sup>” and “Random Field Inspections<sup>1</sup>” differ in that there is an initial 2% criterion for “Random Form Review<sup>1</sup>” sampling, and an initial 1% criterion for “Random Field Inspection<sup>1</sup>” sampling. Additionally — a Field Technicians first acceptance testing assignment after certification will undergo a “Random Form Review<sup>1</sup>”.

There is a 1% criterion for “Random Field Inspection<sup>1</sup>” sampling. This procedure is commenced when a NLCAA-certified AT Technician has completed their certification.

The 2% criteria; for Form Reviews:

Beginning with the 20<sup>th</sup> job for a Field Technician, the NLCAA database management software will generate a flag<sup>±</sup> indicating that two 10-sided RPG, (role playing game), die must be cast twice, (once for 10’s place and once for 1’s place), to determine which 2 of the next 100 acceptance testing jobs for the Field Technician will be selected for a “Random Form Review<sup>1</sup>”. Triggers<sup>±</sup> will then be inserted into the NLCAA database management software to flag<sup>±</sup> a human operator that the next Acceptance testing job for the specified Field Technician must have a Form Review.

Examples: ——— (Roll 1 - Die 1) = 2 —=> 10 to 20 Range

(Roll 1 - Die 2) = 1 —=> 11<sup>th</sup> next job selected

The 1% criteria; for Random field Inspections:

Beginning with the certification of a Field Technician, a 10-sided RPG, (role playing game), die must be cast twice, (once for 10’s place and once for 1’s place), to determine which of the next 100 acceptance testing jobs for the Field Technician will be selected for a “Random Field Inspection<sup>1</sup>”. A trigger<sup>±</sup> will then be inserted into the NLCAA database management software to flag<sup>±</sup> a human operator that the next randomly selected job for a Field Inspection must be inspected if feasible.

Examples: ——— (Roll 1) = 5 —=> 40 to 50 Range

(Roll 2) = 3 —=> 43<sup>rd</sup> next job selected

When an Acceptance Test Technician is selected for “Random Form Review<sup>1</sup>” or a “Random Field Inspection<sup>1</sup>”, the Field Technicians’ last Employer of record will be informed by first class mail that they must remit the fee, (if not waived), for a “Form Review<sup>1</sup>” or “Random Field Inspection<sup>1</sup>”, and that the applicable process will commence for the Field Technicians’ next anticipated job.

## Lab Specifications

Changes submitted Confidentially

## Definitions

### **Audit Form**

A form filled out when a Desk Audit is required as the initial step in the Audit Procedure. Entries on this form will allow insight into the abilities of the Lighting Controls Acceptance Test Technician and Lighting Controls Acceptance Test Technician Employer who must fill out and sign this form together. This Audit Form will be submitted to NLCAA and cross-correlated with acceptance testing data supplied to the NLCAA database for the job in question.

### **~~Audit Field Inspection~~ (Audit Procedure “Audit Procedure Field Inspection”)**

~~A Field Inspection prompted by an unsatisfactory Audit Procedure Form Review. As prescribed in The Audit Procedure; (Attachment 5); NLCAA may, at their discretion, require an Audit Procedure Field Inspection to be required. An unsatisfactory Audit Procedure Form Review will be any Audit Procedure Form Review that; in the opinion of NLCAA, their agent(s), or proxies; contains evidence that any of the undesirable activities described under § 10-103-A (c) E. **Certification Revocation Procedures** may have occurred. Additionally: Logical inconsistencies on Audit Forms or mismatches of data between Audit Form entries and acceptance testing data submitted for the same job will — at the discretion of NLCAA — prompt a demand for an Audit Procedure Field Inspection. If this Audit Procedure Field Inspection discloses evidence, (in the opinion of NLCAA Directors, agents, or proxies), of any of the undesirable activities described under § 10-103-A (c) E. **Certification Revocation Procedures**, (described on pages 22 and 23 of this application), a complaint procedure will be initiated by NLCAA against the Employer(s) and Field Technician(s) implicated.~~

A Field Inspection consists of a minimum 2-hour building site visit during which the ATT performing acceptance testing will be observed and interviewed by an approved NLCAA inspector. The Field Inspection may include, but not be limited to, any of the following: verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the ATT performing acceptance tests.

### **~~Audit Procedure Form Review-Desk Audit~~**

~~A Form Review to correlate data between an Audit Form and the associated acceptance test form(s) to ensure proper testing procedures.~~

### **~~Audit Procedure Process~~ — Attachment 5**

### **Arbitration agreement**

A separate agreement between NLCAA and Lighting Controls Acceptance Test Technicians and Lighting Controls Acceptance Test Technician Employers, if any.

### **~~Complaint Procedure~~ — Attachment 7**

~~Complaints may be initiated by persons both within and outside of NLCAA. All Failures of~~

**Complaint Form – Attachment 6**

A form created by NLCAA when an ATT and/or ATE has a complaint filed against them by a 3<sup>rd</sup> party or NLCAA. The form is sent to the ATT and/or ATE to notify them that a complaint has been filed against them.

**Flag**

An indication from the NLCAA Database Management Software to a human operator, or mail management system, indicating an action is to be taken concerning a Field Technician or Employer.

**Form Review**

~~A viewing and analysis of acceptance testing form data by NLCAA personnel.~~

**Training, (types of ...)****Certification Training**

Initial certification training of ~~Field Technicians~~ ATTs or ATEs ~~Employers~~

**Recertification Training – also can be referred to as “Code Update” Training**

Training of Field Technicians or Employers due to changes in the Energy Code

**Repeat Training**

A repetition of initial certification training of Field Technicians or Employers

**Disciplinary Training**

Intensive training generated by a Complaint Procedure Finding. This retraining and/or evaluation may include: Repeating the NLCAA Acceptance Test Technician Training Course in part or in full, demonstrating acceptance testing proficiency using additional laboratories or mock-ups, verbal question and answer tests, or challenge tests in actual areas with lighting controls installed, or any combination of the proceeding.

**Field Inspection**

~~A “Field Inspection<sup>4</sup>” will consist of a minimum 2 hour site visit during which the Field Technician performing acceptance testing will be observed and interviewed. In addition: any or all of the following may occur; verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the Acceptance Test Technician(s) performing acceptance tests.~~

**Suspended**

A suspension of certification for up to 5 months—A status of an ATT or ATE’s certification that temporarily blocks access to the NLCAA testing software, prevents them from performing acceptance testing and marks them as inactive on the NLCAA website.

**Revoked – also referred to as “decertified”**

A revocation of certification—A status of an ATT or ATE’s certification that permanently removes their certification. They will no longer be able to perform acceptance testing or become certified as an ATT or ATE through NLCAA in the future.

**Surrendered**

A status of an ATT or ATE’s certification that temporarily blocks access to the NLCAA testing software, prevents them from performing acceptance testing and marks them as inactive on the NLCAA website. This occurs when an ATT or ATE voluntarily relinquishes their certification.

**Active**

The status of an ATT or ATE’s certification when they are compliant and able to perform Acceptance tests

**Inactive**

The status of an ATT or ATE’s certification when they are suspended, revoked or surrendered

**Randomly**

Person(s) selected by the “Random Selection” process shown in the Oversight Procedures in Attachment 14

**Telecommunications**

Any method of interactive communication between two or more parties, including telephone conversation, e-mail, text transmissions, live “chat”, or other internet interactive communications. For the purposes of this document face-to-face conversations shall meet this definition.

**Trigger**

A number, value, placeholder or setpoint entered into the NLCAA database management software meant to produce a Flag due to some future event.

**Pseudo Random Number Generator (PRNG)**

An algorithm that uses mathematical formulas to produce sequences of random numbers. PRNGs generate a sequence of numbers approximating the properties of random numbers.



## NLCAA FEE SCHEDULE

The charge for the NLCAA Lighting Controls Acceptance Test Technician Certification course of instruction is: \$1500.00

The charge for the NLCAA Lighting Controls Acceptance Test Technician Employer Certification course of instruction is: \$650.00

The charge for online Recertification Training and examination shall be ~~\$400.00~~ 150

~~The charge for Acceptance Code Update Training shall be \$110.00~~

The charge for Repeat Training is: up to \$650.00 for ATT Employers ATEs and up to \$1500.00 for ATTs Technicians

~~The charge for Disciplinary Training is: \$2000.00~~

~~The charge for Refresher Training is: \$0~~

~~The charge for an Audit Procedure Process is: \$~~

~~The charge for an Audit Procedure Form Review is: \$0~~

~~The charge for a Random Form Review is: 75.00~~

The charge for a ~~Complaint Procedure Form Review~~ Desk Audit is: \$150

~~The charge for a Disciplinary Form Review is: \$200.00~~

~~The charge for a Complaint Procedure Field Inspection is: \$500.00~~

~~The charge for an Audit Procedure Field Inspection is: \$500.00~~

The charge for a ~~Random~~ Field Inspection is: \$500.00

~~The charge for a Disciplinary Field Inspection is: \$1500.00 per day~~

The charge for an Annual Renewal late penalty payment is: \$100

The charge for a Complaint fee is: \$150

The charge\* for the use of NLCAA Acceptance Testing Data Entry Software is: \$250.00

\*Note: The charge for the use of NLCAA Acceptance Testing Data Entry Software is based on each Building Permit issued where Lighting Controls Acceptance Testing is required for that project.

Note: NLCAA Reserves the right to reduce or waive any fees shown.

To:

The California Energy Commission  
1516 Ninth Street  
Sacramento, California

From:

NLCAA  
3301 E. Hill Street, Suite 408  
Signal Hill, California

**TITLE**

*APPLICATION FOR APPROVAL OF NLCAA, (THE NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA), AS A LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER.*

**DESCRIPTION**

Submission to the California Energy Commission to Certify NLCAA, (The National Lighting Contractors Association of America), as a LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER as defined in section § 10-102 DEFINITIONS, per the 2019 Building Energy Efficiency Standards.

**§ 10-103.1 Scope.**

NLCAA recognizes and verifies that as a Certification Provider it must abide by the requirements of: § 10-103.1.

**§ 10-103.1 (b) 2. Industry Coverage by Certification Providers – “... certification costs ...” NOTICE:**

**NLCAA reserves the right to reduce or any charges specified by this document or shown in Appendix 3: Fee Summary.**

*To Whom it may Concern:*

**ABSTRACT**

The National Lighting Contractors Association of America, (NLCAA), proposes to renew its status as a certified Lighting Controls Acceptance Test Technician and Lighting Controls Acceptance Test Employer provider by submitting an application as specified in §10-103.1(c) of the 2019 Building Energy Efficiency Regulations and adhering to the specifications outlined in this document conforming to the 2019 Building Energy Efficiency Regulations - §10-103.1(c)-(g).

Within the confines of this document, the Lighting Controls Acceptance Test Technician and Lighting Controls Acceptance Test Employer Certification Provider shall be deemed to be NLCAA – referred to variably as the “National Lighting Contractors Association of America” or “NLCAA”. Within the confines of this document the business entity of California Electrical Training, Inc., 3301 E. Hill Street, Suite 408, Signal Hill, CA, shall be variably referred to as: “California Electrical Training” or “CET”.

Within the confines of this document, a Certified Lighting Controls Acceptance Test Technician shall be referred to variably as: “AT Technician” or “ATT” or “Acceptance Test Technician” or “Field Technician”.

Within the confines of this document, a Certified Lighting Controls Acceptance Test Technician Employer shall be referred to variably as: “ATT Employer” or “ATE” or “Acceptance Test Technician Employer” or “Acceptance Test Employer” or “Employer” or “Lighting Controls Acceptance Test Employer”.

Within the confines of this document, a Lighting Controls Acceptance Test Technician Certification Provider may be referred to as an “ATTCP”.

Within the confines of this document, the California Energy Commission may be referred to as the “CEC”.

## Overview of Document Contents

Scope.....	Page 1
Abstract.....	Page 2
Table of Contents.....	Page 3-4
Reasonable Access to Class Availability.....	Page 5
Organizational Structure.....	Page 6, Attachment 1
ATE Course Material.....	Page 6
Steps to Receive ATE Certification.....	Page 6
Requirements for Certification of ATEs.....	Page 7
ATT Training Scope.....	Page 8, Attachment 2
ATT Curricula.....	Page 9, Attachment 2
ATT Hands-on Training.....	Page 10, Appendix 1
ATT Prequalification.....	Page 10-12
Steps to Receive ATT Certification.....	Page 12
ATT/ATE Time Schedule.....	Page 12
Instructor to Trainee Ratio.....	Page 12
Tests.....	Page 12
ATE/ATT Annual Renewal.....	Page 13
Recertification.....	Page 13-14
ATE Training Scope.....	Page 14
ATE Course Description.....	Page 15
Complaint Procedures.....	Page 15, Attachment 6
Procedures for Revocation and Surrender.....	Page 15
Independent Oversight.....	Page 16

Quality Assurance and Accountability.....	Page 16
Field Inspection Description.....	Page 17
ATT/ATE Certification Status and Verification.....	Page 17
Annual Reports.....	Page 17
Summary.....	Page 18
Bylaws of NLCAA.....	Attachment 1
ATT Course Curriculum Outline.....	Attachment 2
ATE Course Curriculum Outline.....	Attachment 3
Oversight Procedures.....	Attachment 4
Complaint Form.....	Attachment 5
ATT/ATE Complaint Procedures.....	Attachment 6
ATE Associate Contract.....	Attachment 7
ATT Associate Contract.....	Attachment 8
Lab Specifications.....	Appendix 1
Definitions.....	Appendix 2
NLCAA Fee Schedule.....	Appendix 3

“... The Certification Provider(s) shall provide reasonable access to certification ... class availability”

NLCAA herewith provides their pledge to provide reasonable access to all pre-qualified potential participants in the Lighting Controls Acceptance Test Technician certification program and all pre-qualified potential participants in the Lighting Controls Acceptance Test Employer certification program. NLCAA will abide by all Code requirements per Section 10-103.1. NLCAA will follow all state and federal anti-discriminatory requirements.

If denied, the applicant will be notified by phone or telecommunications. The applicant can appeal via written response and it will be reviewed and voted on by a minimum of three members of the Board of Directors.

A detailed description of the criteria and review process used by the ATTCP, (NLCAA), to determine the relevance of technician professional experience shall be presented under § 10-103.1 (C) 3 B. (iii) – Prequalification.

**§ 10-103.1 (c) Qualifications and Approval of ATTCPs.**

This document will constitute the written application for NLCAA and shall include a summary and any related background documents as attachments to this document.

**§ 10-103.1 (c) 1 Requirements for Applicant ATTCPs to Document Organizational Structure.**

The requirements of § 10-103.1 (c) 1 Shall be met by the appending of Attachment 1, “Bylaws of National Lighting Contractors Association of America”.

Supervision, and support of the acceptance test training and certification process shall be supplied through independent oversight by the Training Consultant for California Electrical Training as detailed in the portion of this application addressing: § 10-103.1 (c) 3 F. **Quality Assurance and Accountability.**

**§ 10-103.1. Requirements for Certification of ATEs. “certification”**

The course material provided by NLCAA supports three goals in training ATEs:

- 1) To find and understand specific information in the four code reference documents – The (current) Building Energy Efficiency Standards regarding their responsibilities, an overview of the design and compliance process and the mandatory lighting controls that must be installed, the (current) Appliance Efficiency Regulations, the (current) Reference Appendices Testing procedures, and the (current) forms.
- 2) To have a basic understanding of the Acceptance Tests, the Acceptance Test Employer must demonstrate a basic understanding of how to fill out and verify the Acceptance Testing Forms.
- 3) To understand the responsibilities of the ATE to the State of California and to NLCAA in signing Acceptance Testing forms.

Additional training material for Acceptance Test Employers will be detailed under § 10-103.1 (c) 3. C. – ATE Training.

The steps to receive the ATE certification are as follows:

- 1) Prequalification
- 2) Payment of training fees
- 3) Successful completion and passing of training and testing
- 4) Sign the ATE Associate contract (see Attachment 7)

### **§ 10-103.1. Requirements for Certification of ATEs.**

The ATE applicant must meet the following requirements:

- If the ATE applicant or any of the owners, officers or partners of the employer had a contractor license or business license suspended or revoked any time in the last five years, they are not eligible to become an NLCAA ATE.
- If the ATE applicant or any of the owners, officers or partners have ever been found liable in a civil suit or found guilty in a criminal action for fraud, theft, or any other acts of dishonesty, they are not eligible to become an NLCAA ATE.
- The ATE applicant must have applicable business license(s), business tax certificate(s) number or a company FEIN.
- The ATE applicant must have a comprehensive general liability insurance policy with a policy limit of at least \$1,000,000.
- The ATE applicant must have workers compensation insurance and provide a copy with the application; where otherwise required by existing State or Federal law.
- The ATE applicant must have a minimum of three years of verifiable experience in lighting controls and electrical distribution systems as determined by the ATTCP.

Applicants will provide their personal contact info, company info, if any, and submit the required documents.

Applicants must provide a copy of a government issued ID; this may include a State issued identification Card, Driver's License, Military identification card or Passport.

Applicants must state all licenses and certifications they have that apply and upload the supporting documentation. This may include, but not limited to, a CA Electrician Certification or a C-10 Contractor's License.

Applicants must confirm if they have ever been certified by an ATTCP before. If so, applicant will provide their ATT/ATE Number. If the applicant was decertified by another ATTCP, they will not be allowed to become an NLCAA ATT or ATE.

NLCAA shall store uploaded supporting documents in the candidate's folder on the NLCAA secure server. If the ATE applicant does not complete training within 6 months of making payment, the application and all supporting documents will be deleted.

### **§ 10-103.1(c)3F. Requirements for Certification of ATEs.**

The Oversight Procedure is appended as Attachment 4, (Oversight Procedures).



**§ 10-103.1 (c) 3. Requirements for Applicant ATTCPs to Document Training and Certification Procedures.**

Acceptance Test Technician Course Curriculum Outline: Attachment 2

Acceptance Test Employer Course Curriculum Outline: Attachment 3

**§ 10-103.1 (c) 3. A. Training Scope.**

Theoretical training such that Acceptance Test Technicians demonstrate their ability to apply the Building Energy Efficiency Standards acceptance testing and documentation requirements shall include (but not be limited to): The Acceptance Test Technician Course Curriculum

**§ 10-103.1 (c) 3 B. (i) Curricula**

Theoretical training topics shall include, (but not be limited to), the topics presented in Attachment 2: "Acceptance Test Technician Course Curriculum Outline".

Additionally, the NLCAA Lighting Controls Acceptance Test Technician course of instruction shall meet or exceed the requirements of: § 10-103.1 (c) 3 B. (ii) **Hands-on training**

§ 10-103.1 **Curricula.**

**Lighting Controls Acceptance Test Technician Training.**

The Lighting Controls Acceptance Test Technician course of instruction as outlined in Attachment 2: “Acceptance Test Technician Course Curriculum Outline”; shall meet the following requirements:

The NLCAA Acceptance Test Technician Certification Provider training curricula for Lighting Control Acceptance Test Technicians shall include, but not be limited to, the analysis, theory, and practical application of the following per §10-103.1(c) (i):

- a) Lamp and ballast systems;
- b) Line voltage switching controls;
- c) Low voltage switching controls;
- d) Dimming controls;
- e) Occupancy sensors;
- f) Photosensors;
- g) Demand responsive signal inputs to lighting control systems;
- h) Building Energy Efficiency Standards required lighting control systems;
- i) Building Energy Efficiency Standards required lighting control system-specific analytical/problem solving skills;
- j) Integration of mechanical and electrical systems for Building Energy Efficiency Standards required lighting control installation and commissioning;
- k) Safety procedures for low-voltage retrofits (<50 volts) to control line voltage systems (120 to 480 volts);
- l) Accurate and effective tuning, calibration, and programming of Building Energy Efficiency Standards required lighting control systems;
- m) Measurement of illuminance according to the Illuminating Engineering Society’s measurement procedures: (IES Lighting Handbook)
- n) Building Energy Efficiency Standards acceptance testing procedures, and;
- o) Building Energy Efficiency Standards acceptance testing compliance documentation for lighting controls.

§ 10-103.1 (c) 3. B. (ii) **Hands-on training**

The technical specifications for all hands-on lab exercises are contained in Appendix 1 – Laboratory Descriptions.

Completed labs must have proper data entered correctly on the lab form and/or NLCAA Testing Software as applicable.

Failed labs may be reattempted twice with permission of NLCAA. Laboratories must be satisfactorily completed for certification of a student.

The laboratory instruction and lab sheets will be contained in the course material submitted for the NLCAA Lighting Controls Acceptance Test Technician Course.

§ 10-103.1 (c) 3. B. (iii) **Prequalification**

**Lighting Controls Acceptance Test Technician Training Candidate Prequalification.**

The prequalification procedure for the NLCAA ATT Training course consists of three steps.

- 1) Submission of an application for approval to take the course of instruction.
- 2) Verification of “at least three years of verifiable professional experience and expertise in lighting controls and electrical systems as determined by the Lighting Controls ATTCP ...”, (NLCAA).
- 3) Successful completion of the prerequisite online courses.

**Step 1)**

Candidates for prequalification must fill out an online, “Application for NLCAA ATT Certification”

Applicants will provide their personal contact info, company info, if any, and submit the required documents.

Applicants must provide a copy of a government issued ID; this may include a State issued identification Card, Driver's License, Military identification card or Passport.

Applicants must state all licenses and certifications they have that apply and upload the supporting documentation. This may include, but not limited to, a CA Electrician Certification or a C-10 Contractor's License.

Applicants must confirm if they have ever been certified by an ATTCP before. If so, applicant will provide their ATT/ATE Number. If the applicant was decertified by another ATTCP, they will not be allowed to become an NLCAA ATT or ATE.

NLCAA shall store uploaded supporting documents in the candidate's folder on the NLCAA secure server. If ATT applicant does not complete training within 1 year of making payment, the application and all supporting documents will be deleted.

## **Step 2)**

Verification of "at least three years of verifiable professional experience and expertise in lighting controls and electrical systems as determined by the Lighting Controls ATTCP ...", must be supplied by the applicant to NLCAA in a form deemed acceptable.

Applicants will fill out a questionnaire requesting a description and breakdown of their experience in lighting controls and electrical systems.

The applicant will confirm the number of hours and/or years of experience they have in the following areas and type their name verifying all information submitted is true and accurate.

- Manual Controls (Switches)
- Multi-Level Controls (Dimming, Alternating Lamps, A/B Switching)
- Shut-Off Controls (Occupancy Sensor, Time Clock, EMCS)
- Daylighting Controls (Daylight Sensors)
- Demand Response (Load Shedding)
- EMCS (Lighting Controls Systems)
- Electrical Lighting Systems (Power, Control and Communication)

## **Step 3)**

Proof of Successful completion of prerequisite online courses is required prior to beginning the course of training.

"Prerequisite online courses" are: The Lighting Controls Association, [[www.lightingcontrolsassociation.org](http://www.lightingcontrolsassociation.org)]; "Education Express" courses - currently located at: [<http://aboutlightingcontrols.org/EducationExpress/>].

Courses EE-101; EE-102 §1, §2; EE-103 §1, §2; EE-105 §1-4; EE-110; EE-201 §1-3 (70% to Pass)

Individuals applying to NLCAA for ATT Training by virtue of Military Experience, Prior Certification, or Degree Earned may use this professional experience to *partially* fulfill the "... three years of verifiable professional experience and expertise in lighting controls and electrical systems" requirement.

This experience will be reviewed on a case-by-case scenario by the Executive Director and/or members of the BOD.

The steps to receive the ATT certification are as follows:

- 1) Prequalification
- 2) Payment of training fees
- 3) Successful completion and passing of training and testing
- 4) Sign the ATT Associate Contract (see Attachment 8)

#### **ATT and ATE Application and Course Time Schedule**

The ATT and/or ATE application must be approved within three months of submittal or it will be deleted. The applicant must make payment for the course within three months of approval or the application will be deleted.

Upon receipt of payment, the ATE course will be available for six months and/or the ATT applicant will have one year to complete the ATT course. If the course is not completed in time, the ATE and/or ATT application will be deleted, there will be no refunds issued and the applicant will be responsible to reapply.

#### **§10-103.1 (c) 3. B. (iv) Instructor to Trainee Ratio**

To ensure integrity and efficacy of the curriculum and program, the personal experience of the CET Training Consultant suggests that a ratio of no more than eighteen students per instructor is to be allowed for lectures and examination procedures – this applies to both the Lighting Controls Acceptance Test Technician curriculum and the Lighting Controls Acceptance Test Employer curriculum.

In the personal experience of the CET Training Consultant a ratio of no more than eighteen students per instructor is to be allowed for overseeing the laboratory exercises which are part of the Lighting Controls Acceptance Test Technician curriculum.

#### **§10-103.1 (c) 3. B. (v) Tests**

Lighting Controls Acceptance Test Technician candidates shall pass a 50-question multiple-choice examination to achieve certification – in addition to successful completion of hands-on training. A 75%, or greater, score on this examination will be required to pass the examination.

Lighting Controls Acceptance Test Employer candidates shall pass a 27-question multiple-choice examination to achieve certification. A 75%, or greater, score on this examination will be required to pass the examination.

Tests will be taken and recorded via paper and/or electronic format.

## **ATT/ATE Annual Renewal**

To remain an active ATT and/or ATE, they must confirm all information and documents provided to NLCAA are up to date and correct between December 1st-January 30<sup>th</sup> each year.

If the information is not verified and/or updated documents are not received by the due date, the ATT/ATE will be placed on an immediate, temporary suspension. They will be placed back in active status once NLCAA receives the required information and a late penalty payment per the fee schedule.

### **§10-103.1 (c) 2. A. Recertification**

Regardless of the original date of certification of an ATT or ATE, recertification shall be required each time the Building Energy Efficiency Standards is updated with new and/or modified acceptance test requirements. In addition, NLCAA Directors may, at their discretion, require recertification when a new Building Energy Efficiency Standards is released as part of the “code cycle” process.

Both ATTs and ATEs must pass an examination of (27) questions in length which consists of multiple-choice-type questions with four answers of which one and only one is the correct response. A participant achieving a score of 75% shall be deemed to have passed the written or interactive examination. A passing score on the examination is required for recertification. “This NLCAA evaluation examination may be administered as ‘Secure and timed online testing of course material...’

After completion of the recertification training: qualified NLCAA ATT Training recertification candidates must read, review and sign the “Acceptance Test Technician Associate Contract” (Attachment 8). NLCAA ATT Training Candidates must state that they are aware of any additional physical or monetary burdens they will face in the future as NLCAA ATTs. The signing of this “NLCAA Lighting Controls Acceptance Test Technician Associate Contract” will render any previously signed and dated “NLCAA Lighting Controls Acceptance Test Technician Associate Contract” null and void. The NLCAA ATTs shall be assumed to be operating under the current contract and any predated “NLCAA Lighting Controls Acceptance Test Technician Associate Contract(s)” shall be considered null and void.

After completion of the recertification training: qualified NLCAA ATE Training recertification candidates must read, review and sign the “Acceptance Test Employer Associate Contract” (Attachment 7). NLCAA ATE Training Candidates must state that they are aware of any additional physical or monetary burdens they will face in the future as NLCAA ATEs. The signing of this “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” will render any previously signed and dated “NLCAA Lighting Controls Acceptance Test Employer Associate Contract” null and void. The NLCAA ATEs shall be assumed to be operating under the current contract and any predated “NLCAA Lighting Controls Acceptance Test Employer Associate Contract(s)” shall be considered null and void.

"Recertification. The ATTCP shall recertify all ATEs (and ATTs) prior to the implementation of each adopted update to the Building Energy Efficiency Standards as these updates affect the acceptance test requirements. Recertification requirements and procedures shall only apply to those specific elements that are new or modified in future updates to Building Energy Efficiency Standards."

Recertification Training will be based on "... each time the Building Energy Efficiency Standards (are) updated with new and/or modified acceptance test requirements."

The minimum length of recertification training is two hours.

Failure to complete the Recertification Training by the due date will result in NLCAA instituting a Complaint Procedure against the offending party or parties.

The ATT and ATE will be recertified under the most recent code cycle change once they have:

- 1) Completed and passed Recertification training
- 2) Signed a new ATT and/or ATE Contract
- 3) Conformed with all applicable policies as deemed by the NLCAA BOD

**§10-103.1. (c) 3. C. Lighting Controls Acceptance Test Employer Training.**

**§10-103.1- Training Scope.**

Theoretical training such that Acceptance Test Technicians Employers demonstrate their understanding of the Building Energy Efficiency Standards acceptance testing and documentation requirements shall include (but not be limited to) the Acceptance Test Employer Course Curriculum:

Theoretical training topics shall include, (but not be limited to), the topics presented in Attachment 3: "Acceptance Test Employer Course Curriculum Outline"

§10-103.1 (c) 3. C. **Lighting Controls Acceptance Test Employer Training.**

The ATE Course "shall consist of a single class or webinar consisting of at least four hours of instruction that covers the scope and process of the acceptance tests in Building Energy Efficiency Standards, Section 130.4."

§ 10-103.1. (c) 3. D. **Complaint Procedures**

A copy of the NLCAA Complaint Form, (Attachment 5), is amended to this document.

A copy of the NLCAA complaint procedure, (Attachment 6), is appended to this document.

§ 10-103.1. (c) 3. E. **Certification Revocation Procedures**

Continued ...

The ATT and/or ATE NLCAA Associate Contract, (Attachment 7 or Attachment 8, as applicable), will be considered null and void after three business days from NLCAA receiving proof of delivery of the certification revocation notice to the ATT and/or ATE in question unless special accommodations have been made.

Any Arbitration agreement signed by ATT and/or ATE who have had their certification revoked or suspended shall be considered to remain binding, valid, and in effect.

A list of all ATTs and/or ATEs with revoked certifications will be made available to CEC staff or ATTCPs upon request and they will be listed as inactive on the NLCAA website

§ 10-103.1. (c) 3. E. **Certification ... Procedures – Surrender of Certification**

Any ATT Employer(s) and/or AT Technician(s) working under an NLCAA Associate Contract may surrender their respective certifications with NLCAA whenever they choose. Notice must be given to NLCAA in writing or via telecommunications. The ATT Employer(s) and/or AT Technician(s) NLCAA Associate Contract, (Attachment 7 or Attachment 8, as applicable), will be considered null and void immediately upon NLCAA receiving notice of certification surrender.

Any Arbitration agreement signed by ATT Employer(s) and/or AT Technician(s) who have surrendered their certification shall be considered to remain binding, valid, and in effect.

A list of all ATTs and/or ATEs with surrendered certifications will be made available to CEC staff or ATTCPs upon request and they will be listed as inactive on the NLCAA website.



### § 10-103.1 (c) 3. F. **Quality Assurance and Accountability**

Independent oversight of the Lighting Controls ATTCP, (NLCAA), will be conducted by California Electrical Training, (CET). This oversight will be conducted by the current Training Consultant associated with California Electrical Training. NLCAA, (the ATTCP), shall be responsible to the CET Training Consultant who will oversee the development of, and reasonable access to, course material developed by the CET Training Consultant or others. NLCAA Directors shall be accountable to the CET Training Consultant in the following manner(s):

- 1) The CET Training Consultant may demand, at his discretion, that NLCAA ATTCP training material be modified, discarded, replaced, or augmented at any time. NLCAA shall have sixty calendar days to reply to this request and must show proof to the CET Training Consultant that said training material has been modified in the training material dissemination process.
- 2) The CET Training Consultant shall reserve the right to inspect and approve any initial changes to course material prior to expert review of the training curricula.

Independent oversight of the Lighting Controls ATTCP, (NLCAA), certification processes and procedures will be conducted by California Electrical Training through the offices of the CET Training Consultant. See CET website ([www.californiaelectricaltraining.com](http://www.californiaelectricaltraining.com)) for the current Training Consultant.

The CET Training Consultant shall ensure that the ATTCP, (NLCAA), abides by the requirements of the Building Energy Efficiency Standards Section 10-103.1.

Any variance from this application affecting the certification processes and procedures detailed in this application shall be duly reported to the California Energy Commission, (CEC), by the CET Training Consultant.

#### **Quality Assurance and Accountability**

On the NLCAA website, there is a place for AHJs, city officials and/or general public to submit comments, complaints or suggestions to NLCAA. The person submitting will have the option to do so anonymously or name themselves so we may reach out to them for further information.

Expert review of training curricula will be continuously provided by a subject matter expert (SME) in the Building Energy Efficiency Standards.

Compliance process evaluation by NLCAA shall take the form of a Desk Audit or a Field Inspection.

The Desk Audit process allows NLCAA directors or their agents to review Acceptance testing forms for signs of “irregularities” or “inconsistences” as determined by NLCAA directors or their agents.

Desk Audits allow comparisons between Audit Forms submitted for a job and Acceptance testing forms submitted for the same job.

The Desk Audits are done at project level and will cover the compliance form requirements of the code.

A “**Field Inspection**” is a “(visit) to (a) building site where certified technicians are completing acceptance tests”, ~~§~~ 10-103.1 (c) 3. F. This site visit shall be arranged by an Acceptance Test Technician Employer for the Field Technician under inspection. This “Field Inspection” should occur on the next possible occasion after the Employer has been notified by telecommunications. A Field Inspection will consist of a minimum 2-hour site visit during which the Field Technician performing acceptance testing will be observed and interviewed by an approved NLCAA inspector. In addition: any or all of the following may occur; verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the Acceptance Test Technician(s) performing acceptance tests.

§ 10-103.1. (c) 3. G. **Certification Number and Verification of ATT Certification Status.**

NLCAA or their agent(s) or proxies shall issue a unique ATT identification number.

NLCAA will issue the Acceptance Test Technician a unique identification number starting with the prefix “ATT” followed by 4 digits representing the order in which the ATT was certified within the month. NLCAA will issue the ATE a unique identification number following the same format, except, the prefix is “ATE.”

Sample	ATT-1405-00002	ATE-1405-00002
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Where (14) indicate(s) the year and (05) indicates the month and (00002) was the second student certified that month.

The NLCAA website has postings for both the ATTs and ATEs. The posting will also indicate if their certification is currently “active” or “inactive.”

NLCAA shall provide verification of current ATT certification status upon request to authorized document Registration Provider or enforcement agency personnel ...

§ 10-103.1 (d) 1. **Requirements for ATTCPs to Provide Annual Reports.**

NLCAA shall provide an annual report to the Energy Commission per the requirements of 10-103.1(d).

## Summary - § 10-103.1

The National Lighting Contractors Association of America, (NLCAA), shall be the organization certifying Lighting Controls Acceptance Test Technicians and Employers of same.

Independent oversight of this process shall be provided by the Training Consultant of California Electrical Training.

Reasonable Access to the course material is shown on page 5 of this document. Hands-on training will be required for the training of Field Technicians.

Prequalification procedures for both Field Technicians and Employers are detailed in this document.

Oversight of the certification processes and procedures will be accomplished through:

The Oversight Procedures and The Complaint Procedure

The ability of NLCAA to suspend or revoke certification of Field Technicians and Employers is detailed in this document.

Requirements for additional training and recertification procedures are detailed in this document.

The ability of NLCAA to reduce or waive fees for training and other services appears in this document.

The ability to provide certification identification numbers and verification of certification to the California Energy Commission is outlined in this document. The ability to provide acceptance testing forms and data to authorized parties, (along with Complaint Procedures ), is described in this document.

NLCAA shall provide annual reports containing, (at a minimum), the information outlined in § 10-103.1 (d) 1.

# NLCAA LIGHTING ATTCP APPLICATION

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## BYLAWS

### OF

## NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA

### ARTICLE 1-OFFICES

#### SECTION 1. PRINCIPAL OFFICE

The principal office of the corporation for the transaction of its business is located at 3301 E. Hill Street Suite 408 Signal Hill in Los Angeles County, California.

#### SECTION 2. CHANGE OF ADDRESS

The county of the corporation's principal office can be changed only by amendment of these Bylaws and not otherwise. The Board of Directors may, however, change the principal office from one location to another within the named county by noting the changed address and effective date below, and such changes of address shall not be deemed an amendment of these Bylaws:

#### SECTION 3. OTHER OFFICES

The corporation may also have offices at such other places, within or without the State of California, where it is qualified to do business, as its business may require and as the board of directors may, from time to time, designate.

### ARTICLE II - PURPOSE

#### SECTION 1. OBJECTIVES AND PURPOSES

The primary objectives and purposes of this corporation shall be:

- a) Provide training and education to State, Counties, Cities, and their municipalities regarding energy efficiency codes.
- b) Provide training and education to the public.
- c) Promote energy efficient lighting and controls systems.
- d) Provide training, certification and oversight to ATTs and ATEs.

# NLCAA LIGHTING ATTCP APPLICATION

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## ARTICLE III - DIRECTORS

### SECTION 1. NUMBER

The corporation shall have a minimum of three directors and collectively they shall be known as the Board of Directors. The number may be changed by approval of the Board of Directors, amendment of this Bylaw, or by repeal of this Bylaw and adoption of a new Bylaw, as provided in these Bylaws.

### SECTION 2. POWER

Subject to the provisions of the California Nonprofit Public Benefit Corporation law and any limitations in the Articles of Incorporation and Bylaws relating to action required or permitted to be taken or approved by the members, if any, of this corporation, the activities and affairs of this corporation shall be conducted and all corporate powers shall be exercised by or under the direction of the Board of Directors.

### SECTION 3. DUTIES

It shall be the duty of the directors to:

- a) Perform any and all duties imposed on them collectively or individually by law, by the Articles of Incorporation of this corporation, or by these Bylaws;
- b) Appoint and remove, employ and discharge, and, except as otherwise provided in these Bylaws, prescribe the duties and fix the compensation, if any, of all officers, agents and employees of the corporation;
- c) Supervise all officers, agents and employees of the corporation to assure that their duties are performed properly;
- d) Meet at such times and places as required by these Bylaws;
- e) Register valid email and physical addresses with the Secretary of the corporation for all official corporate correspondence.

### SECTION 4. TERMS OF OFFICE

Each director shall hold office until the next annual meeting for election of the Board of Directors as specified in these Bylaws, and until his or her qualified successor is elected.

### SECTION 5. COMPENSATION

Directors shall serve without compensation. In addition, they shall be allowed reasonable advancement or reimbursement of expenses incurred in the performance of their regular duties as specified in Section 3 of this Article. Directors may not be compensated for rendering

## NLCAA LIGHTING ATTCP APPLICATION

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services to the corporation in any capacity other than director unless such other compensation is reasonable and is allowable under the provisions of Section 3 of this Article

### **SECTION 6. PLACE OF MEETINGS**

Meetings shall be held at the principal office of the corporation unless otherwise provided by the board or at such place within or without the State of California which has been designated from time to time by resolution of the Board of Directors. In the absence of such designation, any meeting not held at the principal office of the corporation shall be valid only if held on the written consent of all directors given either before or after the meeting and filed with the Secretary of the corporation or after all board members have been given written notice of the meeting as hereinafter provided for special meetings of the board. Any meeting, regular or special, may be held by conference telephone or similar communications equipment, so as long as all directors participating in such meeting can hear one another.

### **SECTION 7. REGULAR AND ANNUAL MEETINGS**

Regular meetings of the Directors shall be held annually in the month of February.

At the annual meeting, directors shall be elected by the Board of Directors in accordance with this section. Cumulative voting by directors for the election of directors shall not be permitted. The candidates receiving the highest number of votes up to the number of directors to be elected shall be elected. Each director shall cast one vote, with voting being by ballot only.

### **SECTION 8. SPECIAL MEETING**

Special meetings of the Board of Directors may be called by the Chairperson of the board, the President, the Vice President, the Secretary, or by any two directors, and such meetings shall be held at the place, within or without the State of California, designated by the person or persons calling the meeting, and in the absence of such designation, at the principal office of the corporation.



# NLCAA LIGHTING ATTCP APPLICATION

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## SECTION 9. NOTICE OF MEETINGS

Notices for all meetings (regular and annual) will be sent to all participants via telecommunications at least 48 hours in advance of the meeting. Emergency meetings are not subject to the 48-hour requirement.

## SECTION 10. CONTENTS OF NOTICE

Notice of meetings not herein dispensed with shall specify the place, day and hour of the meeting. The purpose of any board meeting need not be specified in the notice.

## SECTION 11. WAIVER OF NOTICE AND CONSENT TO HOLDING MEETINGS

The transactions of any meeting of the board, however called and noticed or wherever held, are as valid as though the meeting had been duly held after proper call and notice, provided a quorum, as hereinafter defined, is present and provided that either before or after the meeting each director not present signs a waiver of notice, a consent to holding the meeting, or an approval of the minutes thereof. All such waiver, consents, or approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

## SECTION 12. QUORUM FOR MEETINGS

A quorum shall consist of Two Directors.

## WRITTEN CONSENT OF DIRECTORS ADOPTING BYLAWS

We, the undersigned, are all of the persons named as the current directors in the Articles of Incorporation of NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA, a California nonprofit corporation, and, pursuant to the authority granted to the directors by these Bylaws to take action by unanimous written consent without a meeting, consent to, and hereby do, adopt the foregoing Bylaws, consisting of four pages, as the Bylaws of this corporation.

Dated: June 26, 2019

Michael Scalzo, Executive Director

Robert Yapp, Treasurer and CET Training Consultant

Brianna Scalzo, Secretary and Program Director

Kevin White, Director

Robert Peterson, Director

Frank Romero, Director

Josh Simpson, Director



## NLCAA LIGHTING ATTCP APPLICATION

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### CERTIFICATE

This is to certify that the foregoing is a true and correct copy of the Bylaws of the corporation named in the title thereto and that such Bylaws were duly adopted by the Board of Directors of said corporation on the date set forth below.

Dated: June 26, 2019

*Michael Scalzo*

Michael Scalzo, Executive Director



## **Acceptance Test Technician Course Curriculum Outline**

Changes submitted Confidentially

## **Acceptance Test Employer Course Curriculum Outline**

Changes submitted Confidentially



## Oversight Procedures

Per our CEC application to become an approved ATTCP, NLCAA oversees the ATEs and ATTs in two ways. There are Desk Audits and Field Inspections.

### Desk Audits:

The Desk Audit process allows for a review of the NRCA Forms completed for the job in question for signs of “irregularities” or “inconsistencies” as determined by an NLCAA approved auditor or a computer “expert system”.

The ATE may accompany the ATT on the required Acceptance Testing job and review the Acceptance Testing Forms submitted; or review the Acceptance Testing Forms submitted by the ATT after job completion. This ensures that the ATT and ATE maintain communication through the years.

### Desk Audit Process:

NLCAA or their agents will require a Desk Audit to be completed according to the following schedule:

- ATT's 1st project after certification.
- A random sample of no less than 1% of each ATT's completed projects. \*
- ATT's 5th job after recertification (not to be the same project as a Field Inspection)

\*The Random Sample will be conducted using the Pseudo Random Number Generator (PRNG)

Pseudo Random Number Generator (PRNG) refers to an algorithm that uses mathematical formulas to produce sequences of random numbers. PRNGs generate a sequence of numbers approximating the properties of random numbers.

- Step 1: ATE and ATT complete the required job to initiate a Desk Audit per the Oversight Procedures.
- Step 2: Within seven days of project completion, NLCAA sends the ATE and/or ATT notification that a Desk Audit will be completed for the project and payment is due.
- Step 3: The ATT and/or ATE must submit payment for the Desk Audit within thirty days of Desk Audit Notification. If the Audit payment is not received, NLCAA will initiate the complaint procedure against the ATT and/or ATE.
- Step 4: Within thirty days of project completion, NLCAA or their agents will review the Compliance Forms and an NLCAA representative will contact the ATT and/or ATE regarding the results.

Step 5: If a discrepancy is detected in the Acceptance Testing Form(s) against Testing procedures, the parties in question shall be contacted via telecommunications by an NLCAA approved auditor.

Should the response(s) of the audited ATE and/or ATT be deemed unsatisfactory, the auditor may require a second Desk Audit and/or a Field Inspection including all applicable fees.

Step 6: If, after the secondary oversight procedures are conducted, the results are still unsatisfactory, the NLCAA auditor will initiate the Complaint Procedure with applicable fees.

### **Field Inspections:**

A Field Inspection consists of a minimum 2-hour building site visit during which the ATT performing acceptance testing will be observed and interviewed by an approved NLCAA inspector. The Field Inspection may include, but not be limited to, any of the following: verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the ATT performing acceptance tests.

This Field Inspection should occur on the next possible occasion after the ATE and/or ATT have been notified that a Field Inspection is required. The ATE is encouraged, but not required, to be onsite during the Field Inspection.

The NLCAA approved inspector will have a Field Inspection checklist to document what Acceptance Tests were performed and if the ATT accurately performed the testing procedures.

*“At NLCAA we use the Field Inspections as a mentoring tool. NLCAA strives to continue teaching in any way we can. While the representative is in the field with the ATT, it is NLCAA’s goal to not only complete the required Field Inspection, but to also find ways of helping and improving the ATT’s testing capabilities whether they are just starting out or are seasoned testers.”*

- Michael Scalzo, Executive Director

### **Field Inspection Process:**

NLCAA or their agents will require a Field Inspection to be conducted according to the following schedule:

- ATT's 2nd to 5th project after certification.
- A random sample of no less than 1% of each ATT’s completed projects. \*
- ATT's 1st to 25th job after recertification (not to be the same project as a Desk Audit).

\*The Random Sample will be conducted using the Pseudo Random Number Generator (PRNG)

Pseudo Random Number Generator (PRNG) refers to an algorithm that uses mathematical formulas to produce sequences of random numbers. PRNGs generate a sequence of numbers approximating the properties of random numbers.

- Step 1: ATT hits the trigger to initiate a Field Inspection per the Oversight Procedures.
- Step 2: NLCAA or its agent notifies the ATE and/or ATT that a Field Inspection is required to be scheduled on the next possible project.
- Step 3: The ATT and/or ATE must schedule the Field Inspection and pay applicable fees to NLCAA.
- Step 4: Approved NLCAA inspector conducts the Field Inspection with the ATT (the ATE is encouraged, but not required, to be onsite during Inspection). The inspector completes the Field Inspection checklist and submits it to the NLCAA database.  
  
If the results are deemed unsatisfactory by the Inspector, the Checklist will be reviewed by the NLCAA Executive Director for further actions.
- Step 5: The ATT and/or ATE will be notified of the Inspection results within twenty days after completion.  
  
If the results are deemed unsatisfactory by the Executive Director, a second Field Inspection or Complaint Procedure may be required with applicable fees.
- Step 6: If, after a secondary Field Inspection is conducted, the results are still unsatisfactory, the NLCAA inspector and/or Executive Director will initiate the Complaint Procedure with applicable fees.



## NLCAA COMPLAINT FORM

Complaint date:

Complaint Fee: \$150

You are receiving this form because a complaint has been filed through NLCAA. Please see the Complaint Procedures on the next steps to address this complaint. You must respond within 7 days.

### **Complaint Filed Against**

Acceptance Test Technician/Employer (ATT/ATE) Name:

ATT/ATE Certification Number:

Telephone Number:

E-mail Address:

Company:

### **If complaint is filed against ATT:**

ATE Name:

ATE Certification Number:

Telephone Number:

E-mail Address:

Company:

### **Complaint Description:**

### **Building codes, procedures or guidelines that may have been violated:**

To respond, please contact:

Brianna Kadar - Program Director

[bkadar@nlcaa.org](mailto:bkadar@nlcaa.org)



## ATT/ATE Complaint Procedures

### Purpose and Objective:

The purpose of this complaint procedure is to provide a mechanism for resolving disputes arising from the use and performance of National Lighting Contractors Association of America (NLCAA) ATTs and/or ATEs. It is recognized that issues may arise regarding the performance of lighting controls acceptance testing. This complaint procedure is intended to assist in addressing and resolving those complaints.

The objective of this complaint procedure is to make available to the public and building departments a process to facilitate a fair, impartial and expeditious dispute resolution. This procedure does not limit or infringe on any other rights the parties may have.

**Definition:** A complaint is a formal written notification of a problem or concern regarding an act, omission, situation or other behavior by an NLCAA ATT and/or ATE. Complaints may be initiated by persons both within and outside of NLCAA.

**Step 1:** Complaint Form is submitted to, or created by, NLCAA or their agent.

**Step 2:** Within seven business days of Complaint Form receipt, (or generation), by NLCAA or their agent; a notification, (including the contents of the Complaint Form), shall be sent to the ATE and/or ATT concerned. This notification shall be sent via telecommunications. If deemed by NLCAA or their agent, the ATT and/or ATE involved may be placed on an immediate temporary suspension until the final disposition of the Complaint has been issued.

**Step 3:** The ATT and/or ATE notified, shall respond within seven business days of the receipt of the Complaint Notification. This response shall be in writing or via telecommunications.

**Step 4:** Once the written responses are received, a committee of a minimum of three NLCAA Directors shall review and evaluate the merits of the Complaint. The committee shall determine the extent of the infraction, if any, and appropriate disciplinary action.

A summary of findings and disciplinary actions shall be sent, via telecommunications, to the ATE and/or ATT in question within twenty business days.

**Step 5:** Upon receipt of NLCAA's findings: the ATE and/or ATT in question shall have twenty business days to appeal the decision of NLCAA regarding any disciplinary action recommended. This appeal shall be in writing or via telecommunications.

Step 6: Within twenty business days of receiving the appeal from the ATE and/or ATT in question, NLCAA shall issue a final dispositive ruling on the matter, which shall be binding on all parties. The appeal review shall be performed by a minimum of three NLCAA directors.

A disciplinary action spreadsheet will be made available upon request for perusal by CEC staff.

Post Hearing Matters:

The NLCAA shall maintain records of the proceedings for six years.





## Acceptance Test Employer Associate Contract

This agreement is made between the National Lighting Contractors Association of America (NLCAA) and \_\_\_\_\_, hereby called the ATE candidate.

The ATE candidate agrees to the requirements and obligations to NLCAA and the State of California as detailed in the literature received during the ATE course and in the course work.

The ATE candidate understands their obligations pertaining to (Please Check):

- Oversight Procedures
- Complaint Procedures
- Recertification and Renewal
- Testing Procedures

The ATE candidate shall follow all NLCAA policies and procedures and Energy Code requirements.

The ATE must use NLCAA testing software when preparing an acceptance test and utilize NLCAA generated NRCA forms, The ATE candidate is aware that each individual building permit will require its own testing software project number.

The ATE candidate shall ensure that all personal and company contact information is kept up to date on the NLCAA dashboard for their account and all ATTs under their supervision.

NLCAA shall provide oversight and assistance to the ATE candidate as needed and required as long as the ATE maintains their NLCAA certification.

NLCAA Representative Signature: Michael Scalzo

NLCAA Representative Name: Michael Scalzo

NLCAA Title: Executive Director

ATE Candidate Signature: \_\_\_\_\_

ATE Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_



## Acceptance Test Technician Contract

This agreement is made between the National Lighting Contractors Association of America (NLCAA) and \_\_\_\_\_, hereby called the ATT candidate.

The ATT candidate agrees to the requirements and obligations to NLCAA and the State of California as detailed in the literature received during the ATT course and in the course work.

The ATT candidate understands their obligations pertaining to (Please Check):

- |   |  |
|---|--|
| <input type="checkbox"/> Oversight Procedures | <input type="checkbox"/> Recertification and Renewal |
| <input type="checkbox"/> Complaint Procedures | <input type="checkbox"/> Testing Procedures          |

The ATT candidate shall follow all NLCAA policies and procedures and Energy Code requirements.

The ATT must use NLCAA testing software when performing an acceptance test and utilize NLCAA generated NRCA forms, The ATT candidate is aware that each individual building permit will require its own testing software project number.

The ATT candidate shall ensure that all their personal and company contact information is kept up to date on the NLCAA dashboard.

NLCAA shall provide oversight and assistance to the ATT candidate as needed and required as long as the ATT maintains their NLCAA certification.

NLCAA Representative Signature: Michael Scalzo

NLCAA Representative Name: Michael Scalzo

NLCAA Title: Executive Director

ATT Candidate Signature: \_\_\_\_\_

ATT Candidate Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Lab Specifications

Changes submitted Confidentially

## Definitions

### **Audit Form**

A form filled out when a Desk Audit is required. Entries on this form will allow insight into the abilities of the Lighting Controls Acceptance Test Technician and Lighting Controls Acceptance Test Technician Employer who must fill out and sign this form together. This Audit Form will be submitted to NLCAA and cross-correlated with acceptance testing data supplied to the NLCAA database for the job in question.

### **Field Inspection**

A Field Inspection consists of a minimum 2-hour building site visit during which the ATT performing acceptance testing will be observed and interviewed by an approved NLCAA inspector. The Field Inspection may include, but not be limited to, any of the following: verification of acceptance tests completed, observation of acceptance testing methods, testing of lighting controls by NLCAA or their agent(s), testing of additional lighting controls not sampled by the ATT performing acceptance tests.

### **Desk Audit**

A Form Review to correlate data between an Audit Form and the associated acceptance test form(s) to ensure proper testing procedures.

### **Arbitration agreement**

A separate agreement between NLCAA and Lighting Controls Acceptance Test Technicians and Lighting Controls Acceptance Test Technician Employers, if any.

### **Complaint Form**

A form created by NLCAA when an ATT and/or ATE has a complaint filed against them by a 3<sup>rd</sup> party or NLCAA. The form is sent to the ATT and/or ATE to notify them that a complaint has been filed against them.

### **Flag**

An indication from the NLCAA Database Management Software to a human operator, or mail management system, indicating an action is to be taken concerning a Field Technician or Employer.

### **Certification Training**

Initial certification training of ATTs or ATEs

### **Recertification Training – also can be referred to as “Code Update” Training**

Training of Field Technicians or Employers due to changes in the Energy Code

### **Repeat Training**

A repetition of initial certification training of Field Technicians or Employers

**Disciplinary Training**

Intensive training generated by a Complaint Procedure Finding. This retraining and/or evaluation may include: Repeating the NLCAA Acceptance Test Technician Training Course in part or in full, demonstrating acceptance testing proficiency using additional laboratories or mock-ups, verbal question and answer tests, or challenge tests in actual areas with lighting controls installed, or any combination of the proceeding.

**Suspended**

A status of an ATT or ATE's certification that temporarily blocks access to the NLCAA testing software, prevents them from performing acceptance testing and marks them as inactive on the NLCAA website.

**Revoked – also referred to as “decertified”**

A status of an ATT or ATE's certification that permanently removes their certification. They will no longer be able to perform acceptance testing or become certified as an ATT or ATE through NLCAA in the future.

**Surrendered**

A status of an ATT or ATE's certification that temporarily blocks access to the NLCAA testing software, prevents them from performing acceptance testing and marks them as inactive on the NLCAA website. This occurs when an ATT or ATE voluntarily relinquishes their certification.

**Active**

The status of an ATT or ATE's certification when they are compliant and able to perform Acceptance tests

**Inactive**

The status of an ATT or ATE's certification when they are suspended, revoked or surrendered

**Randomly**

Person(s) selected by the “Random Selection” process shown in the Oversight Procedures

**Telecommunications**

Any method of interactive communication between two or more parties, including telephone conversation, e-mail, text transmissions, live “chat”, or other internet interactive communications. For the purposes of this document face-to-face conversations shall meet this definition.

**Trigger**

A number, value, placeholder or setpoint entered into the NLCAA database management software meant to produce a Flag due to some future event.

**Pseudo Random Number Generator (PRNG)**

An algorithm that uses mathematical formulas to produce sequences of random numbers. PRNGs generate a sequence of numbers approximating the properties of random numbers.

## **NLCAA FEE SCHEDULE**

The charge for the NLCAA Lighting Controls Acceptance Test Technician Certification course of instruction is: \$1500

The charge for the NLCAA Lighting Controls Acceptance Test Employer Certification course of instruction is: \$650

The charge for online Recertification Training and examination shall be \$150

The charge for Repeat Training is: up to \$650 for ATEs and up to \$1500 for ATTs

The charge for a Desk Audit is: \$150

The charge for a Field Inspection is: \$500

The charge for a Complaint fee is: \$150

The charge for an Annual Renewal late penalty payment is: \$100

The charge\* for the use of NLCAA Acceptance Testing Data Entry Software is: \$250

\*Note: The charge for the use of NLCAA Acceptance Testing Data Entry Software is based on each Building Permit issued where Lighting Controls Acceptance Testing is required for that project.

Note: NLCAA Reserves the right to reduce or waive any fees shown.