DOCKETED		
Docket Number:	13-ATTCP-01	
Project Title:	Acceptance and Training Certification	
TN #:	242759	
Document Title:	Staff Report ATTCP Amendment Review for NLCAA Review of Changes to QA Procedures	
Description:	Staff Report Acceptance Test Technician Certification Provider Application (ATTCP) Amendment Review for NLCAA Review of Changes to QA Procedures	
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Organization:	California Energy Commission	
Submitter Role:	Commission Staff	
Submission Date:	4/25/2022 8:09:06 AM	
Docketed Date:	4/25/2022	







California Energy Commission **STAFF REPORT**

Acceptance Test Technician Certification Provider Application Amendment Review for National Lighting Contractors Association of America

Review of Changes to Quality Assurance Procedures

April 2022 | CEC-400-2022-003

California Energy Commission

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ABSTRACT

As specified in section 10-103.1(f) of the *Building Energy Efficiency Standards* (codified in Title 24, Part 1, of the California Code of Regulations), acceptance test technician certification providers may submit an amendment to their approved application. Amendments submitted after approval of an application that contain any substantive changes are subject to the application review and determination process specified in section 10-103.1(e).

Staff has evaluated the complete amendment application that the National Lighting Contractors Association of America submitted on January 28, 2022, and has determined that the proposed changes to the quality assurance and accountability procedures outlined in the amendment satisfy the requirements in section 10-103.1(c)3F of the *2019 Building Energy Efficiency Standards*. Staff recommends approval of the National Lighting Contractors Association of America amendment application.

Keywords: Nonresidential lighting controls acceptance test technician certification provider, National Lighting Contractors Association of America, lighting controls, acceptance testing, Building Energy Efficiency Standards, application amendment

Wong, Daniel. 2022. *Acceptance Test Technician Certification Provider Application Amendment Review for National Lighting Contractors Association of America*. California Energy Commission. Publication Number: CEC-400-2022-003.

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EXECUTIVE SUMMARY

The acceptance test technician certification provider program addresses training, certification, and oversight of acceptance test technicians, as well as the acceptance test employers. The technicians perform the tests required by California's *Building Energy Efficiency Standards*, and the employers are responsible for the technician's work. Providers are professional organizations that are approved to provide training curricula for technicians and employers, certification procedures, complaint resolution (including disciplinary procedures), quality assurance, and accountability measures. Acceptance testing ensures that installed equipment, controls, and systems in nonresidential buildings operate as required by the *Building Energy Efficiency Standards*.

As specified in section 10-103.1(f) of the *Building Energy Efficiency Standards* (codified in Title 24, Part 1, of the California Code of Regulations), acceptance test technician certification providers may change the conditions of their application by submitting an amendment for approval.

On November 17, 2014, National Lighting Contractors Association of America was approved by the California Energy Commission (CEC) as a nonresidential lighting controls acceptance test technician certification provider. The association submitted an amendment application to the CEC on December 15, 2021. The association submitted a revised amendment application to address staff's evaluation for compliance on January 28, 2022.

According to section 10-103.1(c)3F, a provider must describe in its application to the CEC its procedures for performing randomly selected on-site audits of no less than one percent of each technician's completed acceptance tests. The proposed amendment makes substantive changes to the on-site auditing procedures established in the association's approved application. Amendments that contain any substantive changes are subject to the full application review and determination process specified in section 10-103.1(e).

Staff evaluated the complete amendment application submitted by the National Lighting Contractors Association of America and has determined that the proposed changes to quality assurance on-site auditing procedures outlined in the amendment satisfy the requirements for quality assurance and accountability in section 10-103.1(c)3F of the *2019 Building Energy Efficiency Standards*. Staff recommends that the CEC approve the National Lighting Contractors Association of America's amendment application.

CHAPTER 1: Background

The Acceptance Test Technician Certification Provider Program

The acceptance test technician certification provider (ATTCP) program addresses training, certification, and oversight of acceptance test technicians (ATTs) who perform the acceptance tests required by California's *Building Energy Efficiency Standards* (Energy Code), as well as the acceptance test employers (ATEs) that employ ATTs. ATTCPs are professional organizations that are approved by the California Energy Commission (CEC) to provide training curricula for ATTs and ATEs, certification procedures, complaint resolution (including disciplinary procedures), quality assurance, and accountability measures.

Acceptance testing ensures that installed equipment, controls, and systems in nonresidential buildings operate as required by the Energy Code. The ATTCP program was developed to improve compliance with Energy Code lighting controls and mechanical systems requirements.

Amendment Application Requirements

As specified in section 10-103.1(f) of the Energy Code, ATTCPs may change the conditions of their application by submitting an amendment for approval.

Amendments that contain nonsubstantive changes that do not substantively alter the requirements of the application materials for the ATTCP, ATT, or ATE are reviewed by the executive director for consistency with section 10-103.1. Amendments determined to be consistent with section 10-103.1 are incorporated into the approval as errata.

Amendments that contain substantive changes are subject to the full application review and determination process specified in section 10-103.1(e). Final approval of amendments that contain substantive changes are made by the CEC at a publicly noticed hearing.

National Lighting Contractors Association of America

On November 17, 2014, the National Lighting Contractors Association of America (NLCAA) was approved by the CEC as a nonresidential lighting controls ATTCP. NLCAA is one of two organizations approved by the CEC as a nonresidential lighting controls ATTCP.

NLCAA submitted an amendment application to the CEC on December 15, 2021. Staff identified deficiencies and discrepancies in the application. NLCAA submitted a revised and complete amendment application to address staff's evaluation for compliance on January 28, 2022.

NLCAA's amendment application was submitted under the 2019 Energy Code. The proposed amendments make substantive changes to the quality assurance and accountability procedures established in NLCAA's approved application. The proposed changes are summarized in Chapter 2. The amendment application was evaluated according to the full application review and determination process specified in section 10-103.1(e).

Evaluation Criteria

The amendment application described in detail each of the following compliance elements to provide staff with the necessary means to evaluate the application and the ability of NLCAA to successfully satisfy the regulatory requirements. Staff evaluated the detailed description of the compliance elements based on the Energy Code requirements and incorporation into the existing ATTCP program including ATT and ATE certification procedures, ATT and ATE training procedures, complaint procedures, and quality assurance and accountability procedures.

- 1. The amendment application described the full procedure for conducting quality assurance and accountability on-site audits. This includes how on-site audits will be randomly selected at the minimum rate of one percent of each ATT's completed acceptance tests, how field audits will be conducted by NLCAA inspectors, actions taken for failed on-site audits, and associated complaint procedures per section 10-103.1(c)3Fii and section 10-103.1(c)3D of the 2019 Energy Code.
- 2. The amendment application described how independent oversight of NLCAA's program will be conducted for oversight of certification materials, processes and procedures, and expert review of training curricula. This includes identifying the entity that will conduct the independent oversight per section 10-103.1(c)3F of the 2019 Energy Code.
- 3. The amendment application included a document describing the scope of all changes to the application; reasoning for the changes and potential impact to the ATTCP, ATT and ATE; a replacement copy of the affected sections of the ATTCP application with changes incorporated; and a copy of the affected sections of the ATTCP application showing the changes in underline and strikeout format per the requirements of section 10-103.1(f)1B of the 2019 Energy Code.

Staff has determined that the proposed changes to quality assurance procedures outlined in the amendment satisfy the requirements for quality assurance and accountability in section 10-103.1(c)3F of the 2019 Energy Code. Staff recommends approval of the NLCAA amendment application.

CHAPTER 2: ATTCP Application Amendment Evaluation

Quality Assurance and Accountability Requirements

As specified by section 10-103.1(c)3F, an ATTCP must describe in its application to the CEC its procedures for conducting quality assurance and accountability activities. An ATTCP must review a random sample of no less than one percent of each ATT's completed compliance forms and must perform randomly selected on-site audits of no less than one percent of each ATT's completed acceptance tests.

In its application, NLCAA established a field inspection process that meets this minimum requirement. The field inspection process consists of a randomly selected building site visit during which the ATT performing acceptance testing is observed and interviewed by an approved NLCAA inspector. The ATT must be on-site during the inspection.

After notifying the ATE and/or ATT that a random field inspection is required for their next project, an NLCAA inspector accompanies the ATT to a job site to observe the ATT, acceptance testing methods, and verify that acceptance tests are completed and that the results are accurate. The NLCAA inspector completes a field inspection checklist to document the results of the inspection.

In addition to randomly selected on-site field inspections, NLCAA also requires a field inspection to be conducted between the ATT's 2nd to 5th job after being newly certified as an ATT, and between the ATT's 1st to 25th job after being recertified for a new Energy Code.¹ These additional quality assurance on-site audits exceed the minimum requirement, however, are not required by the Energy Code.

Proposed Application Amendment

The proposed amendment adds a field audit process in addition to the existing field inspection process. The field audit process consists of a randomly selected building site visit by an NLCAA approved inspector after acceptance testing has been completed by the ATT. The inspector verifies acceptance tests have been completed and verifies the accuracy of acceptance tests by comparing on-site testing results to the documented results submitted by the ATT. The NLCAA inspector completes a field audit checklist to document the results of the audit.

The field audit process is similar to the field inspection process. The key difference is that the field audit is conducted after the acceptance testing has been completed by the ATT. The inspector will provide similar verification of acceptance testing and verify that documented acceptance testing results match the conditions on-site. The inspector does not observe the ATT while performing acceptance testing. NLCAA permits and encourages ATTs to be on-site during the audit, however, it is not required.

¹ Per section 10-103.1(c)3Bvi, An ATTCP shall recertify all ATTs prior to the implementation of each adopted update to the Energy Code when these updates affect the acceptance test requirements. Recertification requirements and procedures only apply to those specific elements that are new or modified in future updates to the Energy Code.

At NLCAA's discretion, field inspections can be conducted in lieu of a field audit or as disciplinary action from a failed oversight process. Field inspections may also be requested by an ATT or ATE as an alternative to the field inspection.

NLCAA will charge \$500 for conducting a field audit. This is consistent with the charge for a field inspection.

The timing of the quality assurance on-site audit for ATT recertification has also been revised. This audit will be conducted between an ATT's 1st to 4th job after being recertified for a new Energy Code instead of between the 1st to 25th job after recertification. In the field inspection process, NLCAA must schedule and coordinate the field inspection with the ATT which requires a longer timeframe. With the field audit process, scheduling of the audit can be done in a shorter timeframe.

All other procedures related to quality assurance and accountability procedures remain unchanged. NLCAA will continue to review a random sample of no less than one percent of each ATT's completed compliance forms and perform randomly selected on-site field audits at a rate of one percent of an ATT's completed acceptance tests. Independent oversight of certification materials, processes and procedures, and training curricula continues to be performed by an independent entity.

Program Impacts

The field inspection process relies on the ATT or ATE to schedule the field inspection with the NLCAA inspector so that the inspector can be on-site with the ATT during the acceptance testing process. NLCAA has stated that this arrangement allows the inspector to provide mentoring and guidance to ATTs while they are conducting acceptance tests, however, it has also led to difficulty scheduling and completing field inspections due to scheduling conflicts and unforeseen health and safety concerns related to COVID-19.

The proposed field audit process resolves potential barriers that may prevent NLCAA from scheduling and completing randomly selected quality assurance audits. NLCAA can conduct a field audit at any time since the ATT is not required to be on-site. NLCAA does not need to rely on the ATT or ATE to coordinate the audit, thus addressing potential scheduling issues. The field audit process also reduces the number of individuals on-site at one time to better comply with COVID-19 protocols that may be in place. In the amendment application, NLCAA requested to retroactively use the proposed field audit process for past due field inspections that have not been able to be completed due to issues described previously.

Field inspections will remain as an alternative option that can be conducted in lieu of field audits at NLCAA's discretion or at the request of an ATT or ATE if desired.

The proposed field audit process will enable NLCAA to continue to perform randomly selected quality assurance on-site audits of no less than one percent of each ATT's completed acceptance tests without negative impact to the ATT, ATE or ATTCP, and while maintaining an equivalent level of oversight to the program.

Staff Assessment

NLCAA's amendment application has been reviewed, and staff has concluded that the proposed amendments satisfy the quality assurance and accountability requirements in section 10-103.1(c)3F of the Energy Code. Staff further found that the amendment application meets the procedural requirements of section 10-103.1(f)1B of the Energy Code. A summary of staff's findings is included in Table 1.

Table 1: Summary of ATTCP Compliance

Requirement	Amendment Location(s)	Staff Assessment
Quality Assurance and	NLCAA Amendment #1 Revision 2:	Complies
Accountability section 10-103.1(c)3Fii	NLCAA Application to the CEC - Rev 05 - 5/1/19	
	Attachment 4 to NLCAA Application to the CEC	
Amendment Process section 10-103.1(f)1B	Appendix 2 to NLCAA Application to the CEC	
	Appendix 3 to NLCAA Application to the CEC	

Source: California Energy Commission staff

CHAPTER 3: Staff Recommendations

Under section 10-103.1(f)2 of the 2019 Energy Code, staff has completed its evaluation of the amendment application submitted by NLCAA. Staff has determined that the NLCAA's proposed amendments to quality assurance and accountability procedures comply with the requirements in section 10-103.1(c) of the 2019 Energy Code. Staff recommends that the CEC approve NLCAA's complete amendment application as submitted on January 28, 2022, to be incorporated into NLCAA's ATTCP application.

APPENDIX A: Glossary

ATE Acceptance test employer	A person or entity who employs an ATT and is certified by an authorized ATTCP.
ATT Acceptance test technician	A field technician who is certified by an authorized ATTCP.
ATTCP Acceptance test technician certification provider	An agency, organization, or entity approved by the CEC to train and certify acceptance test technicians and acceptance test employers.
CEC California Energy Commission	The California Energy Commission is the state's primary energy policy and planning agency.
Energy Code Building Energy Efficiency Standards	State regulations contained in Title 24, Parts 1 and 6 of the California Code of regulations and the Reference Appendices.
NLCAA National Lighting Contractors Association of America	A CEC-approved ATTCP.